

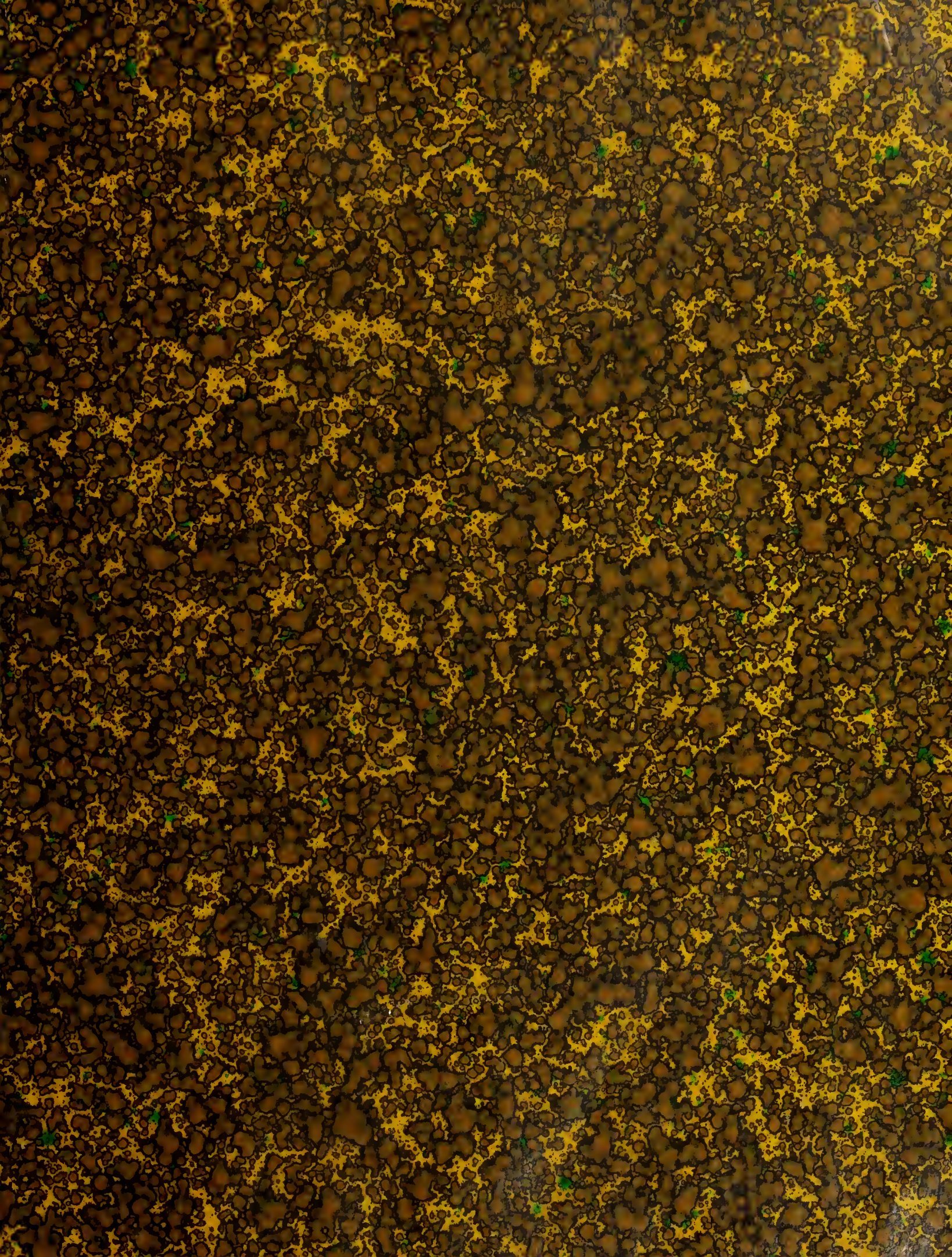


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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"The nurseryman must do the thinking for the great mass of planters."—PROF. N. E. HANSEN.

VOL. IX.

ROCHESTER, N. Y., JANUARY, 1901.

No. 1.

PATRONS OF NURSERYMEN.

**Brief Resume of Proceedings of State Horticultural Societies—
Nurserymen Prominent in the Councils of the Orchardists—
Wide Range of Subjects in a Correspondingly Wide
Range of Territory—From Vermont to California and from Minnesota to Maryland.**

CENTRAL ILLINOIS—Twenty-eighth annual meeting, at Canton, last month. George J. Foster, Evanston, discussed the relation of the horticulturist to the nurseryman. The nurseryman must live in thought and deed at least five years in advance of the fruit grower. He is always on the lookout for improvement and develops new varieties. The nurserymen have done more for the horticultural interests of Illinois than all others put together. They conducted experiment stations 20 years ago and made it possible for the public to have such stations now at the state's expense. A more cordial feeling should exist between the fruit grower and the nurseryman. They are brothers in a common cause and each needs the others aid. While the planter will usually find it very much to his profit and satisfaction to buy his stock direct from some reliable nurseryman, yet the tree peddler, in spite of his shortcomings, is not all bad. He has, by means of his smooth tongue and colored plates, induced many farmers to beautify and enrich their homes by the planting of trees.

VIRGINIA STATE—At Roanoke, Nov. 20-21. President Wood said that there is no region where choice winter apples may be grown more cheaply or in greater perfection than in the Piedmont and mountain sections. Peaches, pears, cherries, grapes and berries are excellent in quality and abundant wherever reasonable effort is made. Even the fig and pomegranate are found in the most sheltered places. The great markets of the world are about as near to Virginia as to any other state. Richmond is about the same distance from New York as Buffalo and Rochester, and the transportation facilities good on both rail and water.

Wesley Webb discussing peach-growing on the Delaware and Chesapeake Peninsula said that while orchards of native and seedling peaches flourished in the state 200 years ago, the budded varieties were introduced in 1832, by Clement Reeve, who moved to Delaware City, Del., from New Jersey. Peach yellows was brought with these trees and destroyed the first orchards in the course of twelve years. The business extended until in 1875 it reached its height, more than six million $\frac{1}{2}$ -bushel baskets being shipped in that year. As many as 35 carloads were shipped daily from Middleton, Del. But the yellows has so devastated the region that very little is now done in peach growing north of Dover. South of that point there is little yellows, owing to more vigorous measures in burning the diseased trees.

The orchards of the Diamond Orchard Company at Salem, seven miles from Roanoke, consisting of 22,000 apple trees and an equal number of peach trees, covering 450 acres, were visited. This land is about 1400 feet above sea level, and the tract has been purchased, cleaned, planted and cared for to date at a cost of \$50,000. The trees were set three years ago.

The San Jose scale has been found in 88 new places this year, and is now known to exist in 406 places in 45 counties. To make up these 406 cases, every lot or garden, as well as every farm, is counted as a separate case.

MINNESOTA STATE—At Minneapolis, Dec. 4-7. Charles G. Patten, Charles City, Ia., discussing "Propagation of New Varieties of Tree Fruits from Seed," showed that the horticulturist has peculiar difficulties in propagating new varieties of tree fruits, but he considered that new varieties could be produced only by selecting parent plants that

are distinct variations. This is but a practical application of the principle set forth by Darwin and others regarding the origin of the species. The paper was discussed at some length by C. L. Watrous of Des Moines, Ia., who urged that members of the association do everything possible to lead common fruit growers to take up the work where it is left by the specialists.

J. T. Grimes, of Minneapolis, protested against the action of the society a few years ago in condemning the cultivation of the Transcendent apple. The movement against this variety of apple, he said, originated among unscrupulous nurserymen who wished to see a hardy and marketable apple supplanted by more tender varieties which would help them to fill their coffers. He called attention to the large number of fruit raisers who had cut down their trees and now regretted their action.

IOWA STATE—At Des Moines, Dec. 11-13. President C. F. Gardner, Osage, in his annual address, referring to the society's experimental work, said: "We know that Iowa has in stock rich resources for the future that if rightly handled would cause a revolution in fruit growing. It is the aim and object of this society so to develop these resources by cross-fertilization and the judicious selection of varieties that we may be able to say that we have a group of fruits originating here that are all our own." Professor Summers, of Ames College, read a paper on the nature of the San Jose scale. It seems like a paradox to speak of the value of the insect. But Professor Summers believes that the presence of the pest does good, just as the potato bug did, in arousing investigation to devise means to combat the insect pests—both classes, those that eat and those that suck—and in inducing cleaner nursery stock in and out of the state. The scale will succumb to science just as the potato beetle did.

C. L. Watrous, Des Moines, believed that he observed during 1900 many reasons for abandoning the plum Americanus. It suffered from dry rot. He told picturesquely and with interest and value to the society of a visit to a Nebraska horticulturist who is making crosses in fruits by the thousands, who maintains his secret for marketable purposes, and whose fruit should be patronized by the state society. The nursery of this gentleman was visited by Mr. Watrous and Prof. Craig, of Ames, together, and the visit was very enjoyable and profitable.

President M. J. Wragg, of Waukegan, vigorously defended the Iowa plum. No better exists. He does not except Japanese, Russian or others. He believes the Iowa plum stands second in the fruit list, second only to the apple. Mr. Wragg gave some valuable pointers to plum growers.

OHIO STATE—At Troy, Dec. 5-7. The report of the meeting, in the Country Gentleman, is introduced with the following pertinent remarks: "Troy is a large nursery center, the region disputing with Bloomington, Ill., the honor of being the second largest nursery point in the country—Rochester, N. Y. being first. As the society is controlled by the nursery interests, it was supposed that the tree-growers and sellers would tumble over themselves in the attempt to make the meeting a glorious record-breaker; but this was not the case. The attendance was largely from a distance, the local attendance at no session reaching beyond 100. Outside the small exhibit of a Troy florist (entered for premiums), not a plant was brought by the local horticultural society; not a spray of evergreen or even a paper flower was to be seen in the way of a decoration. The time will come when things will be different and a gathering of leading horticulturists will demand something more in the way of welcome than the erection of half a dozen bare tables. I am not finding fault with the Miami Valley horticulturists especially, as they have but followed precedent long established. But a few loads of evergreens, a few bushels of artificial flowers, a few dollars' worth of genuine flowers and a couple of days' work by a dozen

earnest workers would have transformed the bare hall into a bower of beauty and been such a bid for notice that the echo might have reached even to legislative halls and helped the desire for more efficient recognition at the hands of those who hold the purse strings of the state. The weather was not cold, and reasonable fine, but President Cushman's opening address found but 40 listeners in a hall of 600 chairs."

N. H. Albaugh, Phoneton, argued against the planting of many Keiffer pears as the demand is well supplied at present. This variety should be interspersed with others, he said, in order to secure pollenization; 10,000 trees set by the Georgia Albaugh Orchard Company in that state, nine years ago, had failed to bear; now every alternate tree is being removed, and the places planted with Elberta peaches. Part of the pear trees left would be top-grafted to Le Conte. Prof. Van Deman said that the Rome Beauty apple which is proving popular in South-eastern Ohio and West Virginia, is being grown successfully in Western New York, whole orchards of Baldwins being worked to Rome Beauty and Ben Davis. W. W. Farnsworth praised the French prune and said the finest he had seen were in a block of 200 trees on the Hooker farm, Rochester, N. Y.

The committee on San Jose scale legislation reported on the law requiring nurserymen to pay \$10 for the first day's work in inspecting and \$5 for overtime, all certificates to be valid for a year from August 15th. N. H. Albaugh argued in favor of a national law which would make state regulations uniform. L. B. Pierce said that a man is considered innocent until he is proven guilty. He did not believe a man could be fined \$10 or more for *not* having the San Jose scale on his trees and bushes, yet this is what the Ohio law amounts to. It was suggested that the law be changed so as to make the cost of inspection a charge against the state.

MICHIGAN STATE—At Grand Rapids, December 4-6. President C. J. Monroe, South Haven, presiding. The apple, the demands of forestry and village improvement associations were principal topics of discussion. Among the exhibits were Greenville apples sent by E. M. Buechly, Greenville, O. The late T. T. Lyon, who was long president of the society, bequeathed to it ten acres in South Haven, known as the South Haven Experiment Station, valued at \$5,000.

MISSOURI STATE—At Farmington, December 4-6. President N. F. Murray is in Los Angeles, D. A. Robnett presided. There were 490 plates of apples. A letter from President Murray states that he could find no really good fruit on the market there in California; he was told that all the best was shipped away. A. Nelson, of Lebanon, sent a barrel of apples to Manila and 90 miles inland, by way of San Francisco, and without ice; was 47 days in transit and reached there for Christmas. Of the many thousands of Christmas presents sent over, this was the only barrel of apples. They were picked, wrapped in paper and packed with the greatest of care, and excelsior laid in top and bottom of barrel, and reached their destination in good order. Secretary Goodman said that in Paris each barrel is emptied out and examined, and he believes this is the right way. Apples sent from here in cold storage went in perfect order and could have sold them for \$3 to \$5 per bushel. Seventeen barrels sent there by express in the fall also reached there in perfect condition. A vote on best varieties of apples for a commercial orchard resulted in Ben Davis first, then Jonathan, Grimes' Golden, Gano, Ingram and York Imperial, in order named, followed by several others. For bottom land, Winesap, Blacktwig, Ingram, Jonathan, and Maiden Blush.

MARYLAND STATE—At Baltimore, December 20-21. Prof. L. H. Bailey, of Cornell University, reviewed changes in methods of orchard management during the closing century. "A hundred years ago," he said, "we had not even horticultural regions. Now we have horticultural sections. Maryland is a horticultural state, we say; California is a horticultural state. Then a man bought a field primarily to grow wheat or corn; now men buy a thousand acres to grow some variety of fruit. We had no commercial strawberry till about 1840; we had no commercial blackberry till the beginning of the Civil war. Washington was the model farmer of his time, but he knew nothing about commercial horticulture; he knew nothing about commercial cut-flower growing; he knew nothing about the breeding of animals. A hundred years ago apples were grown primarily for cider. 'They were grown for cider, for feeding to the hogs and some for the family,' as a writer of that day put it. Farmers used to call the scientific men theorists; now the farmers themselves are the theorists. What we

must do is to instil a scientific point of view, a mental idea, a trend of thought, the philosophy of things and then all will work right in practice.

William A. Taylor, assistant chief, division of pomology, United States Department of Agriculture, gave an account of the horticultural exhibits at the Paris Exposition. Prof. Waugh, of Vermont, discussed "Facts About Plums." Addresses were delivered by Prof. M. B. Waite, assistant chief, division vegetable pathology, United States Department of Agriculture; Prof. H. E. Van Deman of Parksly, Va., and Guy L. Stewart, S. D. Willard, W. S. McKean, W. G. Johnson, and D. M. Nesbit, special agent, United States Department of Agriculture.

CALIFORNIA FRUIT GROWERS—At San Francisco, December 4-8. Twenty-fifth convention. The transportation of fruit to the East was the main topic discussed by President Ellwood Cooper. William B. Gester, of Placer, said: "During the season past, the loss to growers and shippers occasioned by the unreasonable length of time occupied by fresh fruit in transit to destination can hardly be measured. Mr. Gester favored the establishment of an independent refrigerator car line to be owned and controlled by the growers. He pointed out the prospect of serious competition from the orchards of Mexico, where, he stated, every variety of fruit grown in California is now successfully produced. President Benjamin Ide Wheeler, of the University of California, at Berkeley, said: "The question before you is to find watering mouths commensurate to the greatness of California's fruit product. You growers of perishable fruit should insist upon scheduled trains which will carry your product into Eastern markets in proper condition. Your business should be removed beyond the range of gambling."

Resolutions requesting railway service to approximate a delivery of cars to Chicago in six days and Atlantic coast points in eight days, and asking Congress to appropriate \$10,000 to benefit horticulture in California were adopted.

ILLINOIS STATE—Forty-fifth annual meeting at Champaign, December 11-13. There were discussions by Professors Van Deman, Wiley, Blair, Burrill, Green, Forbes and Keffer. Prof. Waite of the United States Department of Agriculture, gave an illustrated lecture on the bitter rot of the apple and the ripe rot of the peach and plum. Spraying and cleaning up orchards were the remedies recommended. Prof. Forbes, state entomologist, made a report on nursery inspection.

IN HONOR OF GEORGE ELLWANGER.

The 84th birthday of George Ellwanger, the senior member of the well-known firm of Ellwanger & Barry, was appropriately observed at a dinner at the Genesee Valley Club, in Rochester, on December 3d. Distinguished citizens were present.

Dr. David Jayne Hill, formerly president of the University of Rochester, now Assistant Secretary of State, wrote the following poem for the occasion, a touching tribute to the venerable guest of honor:

Fruits of the fecund earth!
How the rich orchards swell
The channels of their living flood
To keep the springtime promises
Of leafage green and bursting bud;
To round, ere blustering winter calls,
The perfect circle of the year,
And pledge to every fruit that falls
That spring shall reappear.

Fruits of the living soul!
How the deep life divine
Hidden in all men, high and low,
Blooms in the heart and lends its strength
To all things that upward grow;
Friendship and love and faith
Have no December in which to die,
They mount from the crests of the snow clad hills
To a springtime beyond the sky!

DAVID J. HILL.

WASHINGTON, D. C., December 2, 1900.

MR. STRINGFELLOW'S CHALLENGE.

His Letter to the NATIONAL NURSERYMAN Quickly Followed by One to the Rural New Yorker—Offers to Prove the Value of His Method as Far North as Maryland—His Proposition to Peach Growers—To Grow Stub-Root Trees Where Peach Orchard Has Died of "Yellows."

Last month we published a letter from H. M. Stringfellow of Lampasas, Tex., regarding the progress of his stub-root demonstration. Quickly following that appeared this communication in the Rural New Yorker:

I read with great interest Prof. Johnson's account of that old mammoth Maryland peach tree, which, without the friendly aid of plow and cultivator, has attained such vast proportions, and if those implements are really a benefit to fruit trees, surely there must be somewhere peach trees of equal size and productiveness. In order to locate them, I offer through your columns, a reward of \$25 to anyone in the United States who will point out any such peach tree that has been plowed and cultivated with ordinary regularity. According to orthodox horticulture there is absolutely no good reason for the existence of that old monument of neglect and especially for its singular habit of "never missing a crop of peaches, and frequently bearing so heavily that the branches are broken," as Prof. Johnson relates. Of course, according to my views, the problem is easily solved. Being of "Crawford type" it is plainly a seedling, and having come up where it has escaped the plow, its entire root system is in a natural condition, just like any forest tree, and it is only doing its duty. Just reflect, Mr. Editor, how different would be the situation to day in Maryland, if all the peach trees that have been planted in the 26 years since that seed peeped above ground, had done only half as well! That they would have done equally well, had they been treated with the same "masterly inactivity" that was meted out to that old tree. I am perfectly convinced and I purpose with your permission to demonstrate it, at my own expense. You pick out a fair, unprejudiced man in the heart of the former Maryland peach district, who has no San Jose scale on his grounds, and let him select an acre on which a peach orchard has in the last few years died of the yellows. Have him lay off the rows 20 feet apart, and mark places for the trees the same distance, except one row, which must be set 10 feet apart in the row. Next, let him thoroughly pound the earth with a heavy square-end piece of timber for a space of two feet every way from the point where trees are to stand. After thoroughly compacting the ground, drive holes six or seven inches deep and about an inch or more in diameter and after dropping in a little fine soil, insert the trees, pressing them firmly down. Next pour in slowly a cup of water and a handful of pulverized earth at the same time until the holes are full. Then apply two pounds of Mapes, preferably, or any other good tree fertilizer to each tree, scattering evenly over the four-foot circle. In addition to this he must as an experiment apply two pounds of copperas (sulphate of iron) to one row, pulverizing it before doing so. A mulch of hay or straw sufficient to keep down weeds must then be placed on the four-foot circle around the trees. Finally drill in thinly cow peas in rows two or three feet apart on the ground between the tree rows. I omitted to say that all lateral roots must be cut close from the trees and the tap roots of 20 trees cut off six inches below the crown, 20 trees five inches, 20 trees four inches, 20 trees three inches, 10 trees two inches and 10 trees one inch. Tops must be cut back to six inches above the ground and all growth allowed to remain the first year without trimming or pruning.

I send inclosed a list of 22 varieties from which 100 trees can be selected in lots of 10, which I will deliver to the experimenter, express charges prepaid. The varieties mentioned are: Elberta, Emma, Sneed, Matthew's Beauty, Greensboro, Triumph, Carman, Susquehanna, Alexander, Amelia, Crosby, Crawford, Foster, Wager, Mountain Rose, Oldmixon, Stump, Heath Cling, Salway, Chairs. I will pay also for the cow peas, copperas and fertilizer, for which bill can be sent to me here. Moreover, if any one of the trees that lives one year, dies during my lifetime (I am now 62) I will send the owner a \$10 bill. All this on condition that no plow, cultivator or other implement disturbs the soil,

or stock be allowed among the trees until they begin to bear, when I would advise that hogs have the run of the orchard, first ringling or splitting their noses. The cow peas are to rot on the ground the first year and mowers run twice a year between the tree rows for three years, clippings allowed to remain where they fall. I insist on the trees being planted where an orchard has died of the yellows. Those I send will be June-headed trees with tap roots, from East Tennessee. I will say that I cured ordinary chlorosis or a yellowing of the leaves last summer on young grapevines and peach trees by applying one pound of pulverized copperas around each one, and would suggest that some one experiment on peach trees with the genuine "yellows." Would also say that I experimented fully eight years ago with Bordeaux Mixture and also a liquid made by slaking rock lime and sulphur with boiling water, for hatter rot on Keiffer pears, after picking. Boxes thus treated showed just as much rot as those not treated. Now send the name of your man, and I will have the trees he selects forwarded.

Lampasas, Tex.

H. M. STRINGFELLOW.

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HAD GOOD RESULTS.

DAVID H. PATTY, GENEVA, N. Y., Dec. 16, 1900.—"I have about sold all the salable stock I have for spring, hence do not care to advertise. If I had the stock to sell, I would certainly use your columns, as I have had good results from advertising with you in the past."

THE COMING APPLE.

*Suggestions Arising From the Offer of the Minnesota Society—
Professor Hansen Says American and Russian Strains Will Be
Combined in the Apple for the Northwest—Horticultural
Veterans May Even Now Have the Nucleus—
They Are Raising Seedlings.*

The recent offer of the Minnesota State Horticultural Society of a premium of one thousand dollars to any one who can produce a variety of apple equal to Duchess in hardiness, the Wealthy in size, appearance and quality, and the Malinda in keeping capacity, has no doubt stimulated effort in the line of raising seedlings and of bringing to light old seedling trees now perhaps growing in some out-of-the-way place, neglected and in heavy sod, says Prof. N. E. Hansen, Brookings, S. D., in *Minnesota Horticulturist*. If any one knew positively just how to produce such an apple, it is very likely that he would not give his secret to the world until his seedling apple had secured the prize. But as it is so delightfully uncertain a subject, and no one knows just how to produce the variety desired, it will perhaps be of interest to discuss some of the various methods that will be worth trying. The writer has several hundred candidates for the honor, now one and two years old.

The coming apple for the Northwest, so earnestly sought by all, will probably have in its make-up the blood of both American and Russian apples, and, probably, the Siberian crabs. The further north we go, the more the Russian blood will be in the ascendancy. In all our discussions about American apples, let us not forget that all were originally imported from West or East Europe. The only true American apple is the wild crab.

The coming apple will very likely be raised from seed saved in the orchard of some one of our horticultural veterans, such as C. G. Patten, J. S. Harris, E. H. S. Dartt or R. P. Speer, where a large number of varieties of both races are grown. In his experimental orchard Mr. Dartt, if I remember rightly, has industriously gathered together some 800 grafted varieties, besides several hundred seedlings of his own. Hives of bees kept in such an orchard would greatly help in the work. The pedigree of the seedlings would be unknown at least in part, but the apple, if hardy, would manage to get along very well without any.

My inventory of seedlings this fall, raised on the grounds at Brookings during the last two years, shows over 27,000 seedlings of native fruits. As to methods, all small lots of seeds are now sown in flats and transplanted into beds in the garden as soon as large enough to handle. It is still better to transplant into 4-inch pots and later to the field. Not a seed is lost with proper care, and the festive and ubiquitous cutworm is robbed of his prey. Larger lots are sown in beds or nursery rows. Transplanting the first season is the common method of European nurseries, and I find here that it gives a finely branched system of roots. The root-pinching at time of transplanting breaks up the tap-root. A large lot of *Pyrus baccata* seedlings was raised this season in this way. Owing to very dry weather immediately after transplanting they were checked in growth, but they are well rooted. To hasten bearing, buds can be cut the second or even the first summer and budded into the top of a bearing tree. The first year's top

can also be used as a scion for top-grafting. German writers say that if a seedling is grafted with itself, that is, the scions cut off and grafted right back on to the same tree, it will bear earlier than if left alone. This method I have never tried.

Nursery propagation is a necessary test for hardiness. A very large number of seedlings of the apple, which has been brought to public notice in the past generation in the Northwest because of the hardiness of the original tree, have quickly dropped out of sight again because the trees failed under propagation in the nursery. Our occasional test winters, such as those of 1872-73, 1884-85, and 1898-99, must be taken into account. Some trees thrive when young, but succumb when they come into bearing. Hence the true value of any seedling can only be determined when it has come into bearing as a grafted or budded tree and has passed safely through a test winter. So do not be too enthusiastic over any new seedling until it has been propagated and put into orchard.

A WELCOME VISITOR.

Here it is! The praying mantis. *Nota bene*, *Mantis religiosa*. Imported by a nurseryman; yet not a pest! Devil-horse, camel-cricket, mule-killer, rear-horse, call it what you will—it is a beneficial insect and it was imported by nurserymen on stock. It eats grasshoppers and other pernicious insects and



does not eat leaves, roots, buds or bark. Entomologists say that it is not only harmless, but that it is beneficial. It was probably imported from Europe on stock by Irving Rouse and Thomas Meehan & Sons. It only remains to be proved that it will eat and in a short time exterminate the San Jose scale.

Entomological journals, please copy.

TRADE LIVELY IN TEXAS.

John Watson, business manager of the Rosedale Nurseries, Brenham, Tex., writes: "Things are simply humming down here. You have the big majorities up there but not all the prosperity. Outside the storm-swept section, a small section along the coast, and barring the boll-weevil pest in a few counties, this state is in better financial condition than for twenty years. North Texas is prosperous; West Texas is more than prosperous, and better times were never seen. We nurserymen are sawing wood and selling trees. The nursery interests in our state are of importance and trade is excellent. We are all going to have money this year, and three meals a day for some time."

Volumes

Include one set of
covers and ads.

1/2 Goat

Lib. Buck.

Cloth

1/2 Duck

1/2 Pig

Light Brown

Dark Brown

Black

Dark Blue

Dark Green

Red

Maroon

Olive

Light Green

Light Blue

Light Drab

Yellow

See Sample Back

1821

16

National
Nursery -
man

1901
9

see note on
other side

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On 2 Oct 1908 - W²

Sent you vol 9
to be bound, you re-
ported that July &
was now we could
not supply -

This is another
copy of the vol -
I wish it I think
complete - please
bind - in place of
the older copy -

Among Growers and Dealers.

Theodore Bechtel, Staunton, Ill., has begun the nursery business at Ocean Springs, Miss.

David H. Patty, Geneva, N. Y., spent a portion of last month in Camden, South Carolina.

Herbert C. Salmon, nurseryman, Louisville, Ky., was married in Rochester, N. Y., December 15th.

Nurserymen in the State of Washington have been planting largely of apples of the late keeping varieties.

The Missoula, Mont., Nursery Company recently completed a modern greenhouse for growing roses and carnations.

E. G. Mendenhall, Kinmundy, Ill., has been re elected secretary and treasurer of the Horticultural Society of Southern Illinois.

Orlando Harrison, Berlin, and J. W. Kerr, Denton, were elected vice-presidents of the Maryland State Horticultural Society.

The dutiable imports of plants, trees, shrubs and vines amounted to \$165,437 in October, 1900, against \$121,349 in October, 1899.

A school of practical horticulture has been established near Hartford, Conn., by the trustees of the Handicraft Schools of Hartford.

Several Minnesota nurserymen have taken Prof. Hansen's advice and are propagating apples on Siberian crab to avoid root killing.

Joseph Meehan, in the Florists' Exchange, advocates the growing of Norway spruce, three to six feet in height, in pots for Christmas trees.

Thomas Meehan was elected professor of botany at the annual meeting of the Pennsylvania Horticultural Society, in Philadelphia last month.

Pelmulder & Wayne are now conducting the Grant City Nursery, Grant City, Ia., Jasper Wayne having succeeded to the interest of B. C. Butler.

Parcels of 11 pounds weight may be sent by mail between New Zealand and the United States at a rate of 12 cents per pound or fraction thereof.

P. J. Regan, H. J. Paasch and Charles Kane have incorporated the Great Northern Nursery Co., at Coralville, Ia., with a capital of \$25,000.

It is stated that the American Pomological Society may hold a meeting next September at some point convenient to the Pan-American Exposition.

Clarence Wedge, Albert Lea, Minn., suffered a heavy loss in the burning of a residence and valuable papers on his nursery grounds, December 12th.

E. Albertson, of Albertson & Hobbs, Bridgeport, Ind., and John B. Morey, Jr., of Dansville, N. Y., visited Western New York nurserymen last month.

Donaldson & Gibson, of Warsaw, Ky., recently shipped 150,000 young Russian mulberry trees to Shenandoah, Ia., to be planted and grown into fence posts.

J. W. Garrett has succeeded to the interest of the senior partner in the firm of Dickey & Garrett, Scotland, Ind. The nurseries will be conducted by Garrett & Son.

M. J. Henry, nurseryman, Vancouver, B. C., has purchased the nursery stock of E. Hutcherson of Ladner and will remove it to his grounds in Vancouver for further disposal.

A total of 150 car loads of Christmas trees from Maine, New Hampshire and Vermont, about 60,000 trees, were disposed of to Philadelphians. New Yorkers purchased 200 car loads.

The six weeks' course in horticulture at the Rhode Island College will commence on February 20. Among the lecturers who assisted in 1900 is Edwin Hoyt, nurseryman, New Canaan, Conn.

Jobbers in nursery stock report that the "dollar cherry tree" may become a reality before spring. They say that they cannot now buy at double the price paid a year ago.—American Florist.

Over 700 lots of fruit-bearing trees, plants and vines were placed with 125 experimenters during last year by the U. S. Department of Agriculture. These include 200 varieties representing 22 species.

Prof. W. J. Green, horticulturist of the Ohio Experiment Station, thinks that fruit growing will sooner or later fall into the hands of specialists, owing to the carelessness of farmers in combating insects and diseases.

The New Haven Nurseries, New Haven, Mo., did a rushing business last fall. They have built a storage room 56x70 feet, which gives them a total frost proof storage of 130x70. The new part is made of stone, with 18-inch walls.

Among the exhibitors at the California Fruit Growers' convention last month were: Chase Nursery Co., Riverside, Thompson's improved navel oranges; George C. Roeding, Fresno, Smyrna figs; Fresno Nursery Co., fruit trees, vines, etc.

Thanksgiving Day was Arbor Day at Macon, Ga. City laborers planted 100 trees, each bearing a plate on which was inscribed the name of a Georgian. Addresses were made in a tent in front of the postoffice, Mayor Smith presiding.

Semi-tropical ferns and palms, and various other genera and species of trees, vines, shrubs and floral plants have been arriving at the Pan-American Exposition by the carload, for the ornamentation of its miles of plazas, courts and sylvan mazes.

The Tree Planting Association of New York City offers to furnish to all inquirers, free of charge, full information as to the most suitable trees for city growth, with list of nurserymen, and prices for the completed work, including iron tree protectors.

President McKinley, in his annual message, 1900, said: "The exposition of the resources and products of the western hemisphere, to be held at Buffalo next year, promises important results, not only to the United States, but for the other participating countries."

Secretary James Wilson of the Department of Agriculture, in his annual report says: "The card catalogue of fruits described in standard American publications has been finished, and so soon as all the fruits can be catalogued, will afford copy for the most complete index in pomology."

Prof. W. G. Johnson, state entomologist of Maryland and secretary and treasurer of the Maryland Horticultural Society, has accepted a position as associate editor of the American Agriculturist. He has been prominently identified with the investigations in connection with the San Jose scale and the peach pests in Maryland.

Secretary Wilson, of the Department of Agriculture, has placed the government seed order with the New York Market Gardeners' Association at \$101,975.50. The last contract, that for 1901, was awarded to Charles Parker, Santa Clara, Cal., at \$61,900 and the order for 1900 was executed by the New York Market Gardeners' Association on a bid of \$70,980.

The Chase Nursery Company has a tract of 1,500 acres at Ethanac, Cal., almost all of which is under cultivation at the present time. Alfalfa is grown extensively. Five wells furnish the tract with water. For fuel, oil is used, a tank having a capacity of 50,000 gallons being in close proximity to the engine house. The Chase Nursery Company owns its own oil well in Los Angeles, from which all of its fuel comes.

It is reported that the total shipments of fresh fruits during 1900 from California were 6,435 cars against 6,868 one year ago, 5,007 two years ago, 5,323 in 1897, 4,052 in 1896, and 4,568 cars in 1895. Of the number first named New York received most, 1,527 cars; Chicago stood next with 1,101; Boston, 649; Minneapolis, 302; Denver, 233. England was the destination for 192 cars, Canada 71 cars, Scotland seven cars. Out of the 6,435 cars shipped from California during the last year, 2,115 cars were pears, 1,361 were peaches, 1,158 plums and prunes.

Burnet Landreth, secretary of the Wholesale Seedmen's League, in a recent circular says: "If the government established a seed shop and sold its seeds it would certainly be a most active competitor in the seed business, but it does worse—it gives them away. It has established a seed shop larger, with two or three exceptions, than any of the fifty or sixty large seed establishments in the country. It runs against them a most active competition. For years the seed trade has been the only business thus crushed down by the government, and the competition is annually getting worse."

14 Oct 1914 N.M.S.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,
305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	- - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

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Annual convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JANUARY, 1901.

THE NEW CENTURY.

The opening of the twentieth century finds the nursery business in a promising condition. It follows a year of steadily advancing prices and an era of general business activity and confidence in commercial quarters. The interest in fruit growing caused by the exhibits and awards at the Paris Exposition will be strengthened by the Pan-American Exposition in Buffalo this year.

While the last year of the nineteenth century is marked by the loss of several prominent nurserymen and horticulturists, many veterans remain to give advice to the large number of younger men who are forging to the front in the business. Among those who died in 1900 were Edward A. Frost, Rochester, N. Y.; T. T. Lyon, South Haven, Mich.; Robert C. Brown of Brown Brothers Co., Rochester, N. Y.; Lord Penzance, of sweet briars fame, England; Isaac Hicks, Westbury L. I.; Elbert S. Carman, editor Rural New Yorker, New York

city; John G. Glen, Glen Brothers, Rochester, N. Y.; John Laing, London, England; Clifford L. Albaugh, Phoneton, O.; David G. Yates, Mount Airy, Pa.; William Saunders, horticulturist, of the U. S. Department of Agriculture; Edward Pynaert, Ghent, Belgium.

NATIONAL QUARANTINE LAW.

At the meeting last month of the California Fruit Growers' Association in San Francisco, Alexander Craw, quarantine officer of the California Board of Horticulture, read a paper arguing on the need for a national horticultural quarantine law for the protection of horticultural and viticultural interests in California, and M. J. Daniels, of Riverside, acquainted the convention with his efforts in Washington "to secure needful legislation for the protection of the citrus interests of California against foreign competition," as a California journal expresses it.

Mr. Craw began his paper before the convention with the statements: "The need of a national horticultural quarantine law for the protection of the horticultural interests of the United States is annually becoming more apparent. Foreign insects are spreading over the eastern states. With national restriction at the time they were introduced they could have been stopped at the port of entry. Once established in the country, they are rapidly disseminated by nursery stock and natural spread." He then quoted the oft-repeated statement that 60,000 large bearing peach trees in North Carolina were cut down and burned, because of the presence of the scale, and that an orchard of 20,000 peach trees in Maryland was completely destroyed in two years. Mr. Craw says: "In other states the loss from this pest has been very serious." But neither he nor any other alarmist has quoted figures showing that the scale has caused such havoc "in other states" as is recorded of North Carolina and Maryland; with the exception of Georgia. If the warnings regarding the scale were well grounded, we should long ere this time have seen whole orchards whiped out in other eastern or southern states.

Again we wish to state the position of this journal upon this subject. The San Jose scale may be a dangerous menace to the fruit interests of the country; it may be necessary to have laws governing the importation of nursery stock; if the scale is as dangerous as is feared by many, certainly it is to the interest of nurserymen as well as of orchardists to check the spread, for any factor tending to discourage the planting of orchards affects the business of the nurseryman; and it is undoubtedly advisable, as the American Association of Nurserymen has already demonstrated, that a uniform federal law upon this subject shall replace the conflicting state laws in existence; but, in the framing of the national law, a great industry like that of the nursery business should not be unduly crippled. It has been agreed several times at conferences between nurserymen, horticulturists and entomologists, that a national law adapted to all the conditions should be passed by Congress. Such a law has been before Congress; but it is not the law advocated by Mr. Craw.

Certainly such a law as Mr. Craw proposes should be referred to the nurserymen for consideration inasmuch as it directly affects them; yet there is no proposition of such a reference, in Mr. Craw's paper before the California convention.

After referring to the Washington convention of 1897, the

proceedings of which are familiar to our readers, Mr. Craw concludes his paper as follows:

Finally, a conference was agreed to by both Washington and St. Louis committees, and a compromise measure was drawn up. Possibly to give this bill some degree of endorsement from California, a congressman from this state was selected to present it in the house of representatives. The defects in the bill and its tendency to favor importers' interests against those of the grower were so apparent that I publicly attacked it through the press and at fruit growers' meetings. Another bill was drafted at the State Fruit Growers' convention held at San Jose, December 12th to 15th, 1899. In this bill all reference to interstate commerce in trees and plants was eliminated, for the reason that it was considered safer for the states to which the stock was consigned, to make the examination, as they are more vitally concerned as to its condition, and the work undoubtedly would be more carefully done than it would be at the point of shipment. In order to harmonize all interests, it was considered better to modify several sections of the original senate bill. The San Jose bill conferred certain discretionary powers upon the Secretary of Agriculture that were acceptable to the members of the convention.

No decisive action has yet been taken by Congress upon such a bill, so I take the liberty of presenting the same bill drawn up by a committee at San Jose and which was endorsed by the State Fruit Growers in convention in that city. A similar bill met with the approval of fruit growers in convention at Sacramento, Los Angeles, and Riverside. I hope that it will meet with your approval and be taken up by the fruit growers of the state and nation, individually, and through their associations, exchanges, institutes, chambers of commerce and boards of trade. If each does his part, Congress will understand that we are in earnest and will grant the necessary protection.

The committee on legislation, of the American Association of Nurserymen, will see that the interests of the nurserymen are safeguarded in this attempt to legislate on nursery subjects. This committee is composed of C. L. Watrous, Des Moines, Ia., chairman; N. H. Albaugh, Phoneton, O.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y.; Robert C. Berckmans, Augusta, Ga.

IT HAS COME AT LAST.

A recent bulletin issued by the Cornell University Agricultural Experiment Station gives particulars by Professor Mark V. Slingerland of the specimens of the European insect called the praying mantis, found in Rochester for the first time in this country by Park Commissioner H. F. Atwood. Professor Slingerland says that the insect is in the main a beneficial one. The inference is that it was imported from Europe with nursery stock. It has a wide distribution in the Old World, being practically common in France.

In view of the criticism to which nurserymen have been subjected by reason of the discovery of pernicious insects on trees and shrubs, it is a matter of congratulation that to the nurseryman is traced the introduction of this beneficial insect. The nurserymen take off their hats to Mr. Atwood and thank him for his timely discovery.

CHANGE AT BREWER & STANNARD'S.

Eugene Brewer, who is well known among nurserymen, retired from the nursery business on January 1, 1901, still retaining his interest, however, in the lands and large orchard interests of Brewer & Stannard. The Ottawa Star Nurseries will hereafter be conducted by F. H. Stannard and Company. Mr. Stannard has such an extensive acquaintance among the nurserymen of the country as to need no introduction, and his personal attention to the business bespeaks its success.

YEAR'S SHIPMENTS TO CANADA.

In response to our inquiry regarding the shipments of nursery stock from Europe and the United States to Canada, during the periods when such shipments are allowed by the Canadian government, N. B. Colcock, custom house broker at Niagara Falls, Ont., writes:

Editor NATIONAL NURSERYMAN:

I delayed answering yours of the 24th November calculating to send you the information asked for immediately after the closing of the fumigating station of this port on the 15th inst. As I was desirous of including all the shipments, I kept back the report, owing to the fact that there was one shipment of nursery stock, destined for Canada, that could not arrive here in time before closing of the fumigating station. I was in communication with the Commissioner of Customs, Ottawa, in the hope of being able to bring them into the country by offering to pay any extra expense that the fumigating agent might be put to by running this shipment through on arrival. I have to-day received a telegram from the commissioner that the shipment could not be imported, the day having been fixed by order-in-council and there being no authority for re-opening. This shipment would have amounted to about \$500. I wired the shippers as to the decision of the minister, and now beg to submit the following figures:

	FROM UNITED STATES		FROM EUROPE.	
	No.	Value.	No.	Value.
Fall and winter of 1899-1900..	14	\$ 123.37	25	\$6,661.00
Spring of 1900.....	48	1,332.00	3	418.00
Fall of 1900.....	42	1,199.93	4	208.00

The above figures you can take as correct. They are not taken from the customs' books, consequently are not official, but are taken from my books, and I have no knowledge of any nursery stock passing this port, except what passed through my hands.

From letters already to hand, I look for considerable increase of shipments from the United States next spring. I hear of some European shipments yet to arrive, but look for the value to be light.

Unnecessary delay has been occasioned in some of the shipments passing here, owing to the fact that the necessary power of attorney and invoices did not arrive until after the boxes had reached this port, and some of the invoices not bearing the proper certificate, a copy of which certificate I beg to enclose. These are important matters which nurserymen should not overlook.

N. B. COLCOCK.

Niagara Falls, Ont., Dec. 21, 1900.

The certificate referred to is as follows:

SHIPMENTS TO CANADA.

After the receipt of this notice, please discontinue the use of the words "Certified Correct" on all invoices of goods destined for Canada. The Canadian government now insists upon the following definitely worded certificate being on all invoices:

"This invoice is true and correct; and where there is a difference between any of the prices shown therein and the ordinary credit prices at which the same articles are now sold bona fide by the exporter in like quantity and condition at this place for consumption in the country, the latter prices are shown on the margin or elsewhere on such invoice.

Dated at 19..

Exporter."

This certificate must be signed by a partner, official or employee of the exporter, having a knowledge of the facts certified to. The certificate must NOT be attached to the invoice, but must be WRITTEN, PRINTED OR STAMPED on the face or back thereof.

The Euclid Avenue Nursery Co., East Cleveland, O., has been formed by the association of Charles W. Metcalf, of East Cleveland, who for ten years has conducted a general planting and landscape business and surrounding territory, and who has a thorough knowledge of the trade, with Henry Kohankie, of Painesville, O., who for twenty-five years has been actively engaged in the business in its various phases, at the Storrs & Harrison Nurseries, at Painesville, Ohio.

INSPECTION METHODS.

Actual Results as Shown by Illinois Report—Detailed Statement by State Entomologist—Distributing Costs—Actual Charges to Nurserymen—Enforcement of the Law—Substitution of Certificates—List of Accredited Inspectors in Twenty-eight States—General Conclusions.

S. A. Forbes, state entomologist of Illinois, has submitted a detailed report to the governor, relating to the first annual inspection of nurseries in Illinois under the act which went into effect on April 11, 1899. His experience is of interest by way of comparison with that in other states.

It was found that there were 245 nurseries in Illinois; 225 were covered for the year ended June 1, 1900, by certificate. A certificate was refused to the owner of but one of these nurseries and this because of the presence of the San Jose scale in a small lot of trees belonging to a dealer in nursery stock, and containing only trees left over from the sales of preceding year. The remaining 19 uncertified premises belong to nurserymen who did not pay the expenses of inspection as required by law, and who, if they made sales or shipped or delivered stock, did so in violation of the law.

Occasionally, says Mr. Forbes, a nursery was in such condition that I was obliged to prohibit the sale of its stock until certain insecticide measures had been applied under the supervision of an agent from my office. In these cases the nurseryman agreed in writing that the certificate finally issued should be attached only to specified parts of his stock to which no objection had been found or to such as had received the required treatment under the approval of an office assistant.

DISTRIBUTING COSTS.

As the law does not prescribe any method of distributing costs of inspection trips to individuals whose premises are inspected, I was obliged to assess these expenses according to my best judgment of what was fair and just to all concerned; and as the trips of my inspectors were not made separately for the purpose of inspecting individual nurseries, but were general trips in the course of which a large number were visited in succession, I was obliged to adopt some plan of division of the total expense of this common trip. After careful study of the workings of various possible plans, the following method was adopted:

The inspection reports and bills of expense of each inspector were brought together every two weeks, and the total cost of inspection for this period, including the salary of the inspector, was distributed among the nurseries concerned in such a manner that all should share equally the cost of transportation and some other general expenses, while the cost of subsistence and the pay of the inspector were divided among them in proportion to the time required for the inspection of each nursery.

Thus, if twenty nurseries were examined in these two weeks, each was charged with a twentieth part of the mere expense of traveling; and if the time spent in the inspection of a given nursery was, say, a fortieth of that spent in the inspection of all of them, then it was further charged with a fortieth of the salary and the cost of subsistence for the two weeks' period. In this way such expenses as had no relation to the size and condition of the nursery were divided equally; such as had some such relation were divided proportionally; and the total cost of all the trips was fully and exactly provided for.

This scheme worked upon the whole fairly well, but had one minor disadvantage in the fact that it was practically impossible to make itemized statements to individual nurserymen, since the items would have included a complete exhibit of two weeks' expense of travel, but few of which it would have been possible for the individual nurseryman in any way to verify. Bills were consequently rendered for the total sum due for each inspection, an explanation of the methods of its determination being also sent if any questions were raised, and the account was certified by me officially as required by law.

The actual charges for nurserymen for salaries and expenses of inspectors ranged from 75 cents to \$36.90, the average charge being

\$5.77. The cost of printing, postage, clerical service, and supervisory was covered by general appropriations to the state entomologists' office, other than those made in the horticultural inspection act. This amounted to about \$500, making the total cost of the first years' inspection about \$2000, an average of \$8.16 per nursery. The inspection was made in July, August and September, 1899.

The second annual inspection, made in 1900, was more quickly accomplished. Instead of a two weeks' distribution period, all subdivision and assessment of expenses was postponed until the end of the inspection season.

ENFORCEMENT OF THE LAW.

Although it is made the duty of the state's attorney to prosecute all violations of the Horticultural Inspection Act, this provision has been largely inoperative because no officer is charged with the duty of making complaint, securing evidence, and serving as prosecuting witness in the case, or provided with funds appropriated for these purposes. The private citizen, even though a competing nurseryman, has not sufficient personal interest in the enforcement of the law to be willing to subject himself to the odium, expense, and loss of time involved in court proceedings. Consequently, although a considerable number of the nineteen nurserymen who failed to take out certificates last year did undoubtedly violate the law, and a number of transportation companies and traveling agents of outside nurserymen and dealers presumably did so, prosecutions under the law, so far as known to me, were limited to two, one instituted by a nurseryman in Northern Illinois and the other by one of my own assistants. In the first case a Wisconsin nurseryman who had shipped and delivered stock in Illinois without a certificate, when brought before a justice pleaded guilty and paid the minimum fine. In the other case, a Chicago dealer having no nursery premises of his own had brought a considerable quantity of stock into the city, disposing of it from a sales-ground and delivering it to customers without the use of a certificate of inspection. This case was brought to trial in a city justice court, the state's attorney of Cook county prosecuting, and a conviction was obtained with an assessment of the minimum fine.

SUBSTITUTION OF CERTIFICATE.

Under the Inspection Act no Illinois nurseryman or seller of nursery stock is permitted to ship or deliver any such stock until he has placed on each package a copy of a certificate signed by some state or government inspector certifying to the inspection of the contents of the package and to its freedom from dangerous insects and contagious plant diseases. This provision affects not only stock grown by the Illinois nurseryman on his own premises, but likewise that brought from without the state. As a great deal of the stock furnished to customers by nurserymen is so imported, and frequently from different states, bearing consequently, if inspected, certificates of as many different inspectors, this requirement seems at first inconvenient if not impracticable. To fill a small order of nursery stock it might be necessary to bring together into one package trees and plants from a number of states and bearing as many different certificates, and the copying of these separate certificates and the attaching of one of each to every bundle would be embarrassing, confusing, and expensive. To obviate this difficulty I obtained by correspondence a list of the official inspectors of all the states in which an inspection system had been by law established, and published this list for the information of nurserymen, offering also to accredit inspection made by these official state inspectors by authorizing the substitution of my own certificate for theirs. This proposition was made in the following circular, under a clause of section 3 of the Illinois law: "When nursery stock is shipped into this state accompanied by a certificate, as herein provided, it shall be held prima facie evidence of the facts therein stated."

OFFICE OF THE STATE ENTOMOLOGIST.

URBANA, ILL., July 1, 1899.

To Illinois Nurserymen: The following is a list of accredited inspectors of nursery stock and other horticultural products:

Alabama, F. S. Earle; California, Alexander Craw; Colorado, C. P. Gillette; Connecticut, W. E. Britton; Delaware, Wesley Webb; Florida, A. L. Quaintance, P. H. Rolfs; Georgia, W. M. Scott; Indiana, James Troup; Iowa, H. E. Sumners; Kansas, Percy J. Parrott, E. A. Pope, J. S. Hunter; Kentucky, H. Garman; Maryland, W. G. Johnson, C. O. Townsend; Massachusetts, C. H. Fernald, H. T. Fernald; Michigan, D. W. Trine; Montana, I. D. O'Donnell, Robert A. Cooley, C. H. Campbell, W. H. Hurlan, J. H. Edwards; Nebraska, Lawrence Bruner; New Jersey, John B. Smith; New York, C. A. Wieting; North Caro-

lina, Gerald McCarthy; Ohio, F. M. Webster; Oregon, Wilbur K. Newell, Lloyd T. Reynolds, J. R. Casey, Emile Schanno, Judd Geer; Pennsylvania, S. B. Heiges, Geo. C. Butz, Frank M. Bartram; Tennessee, Chas. E. Chambliss; Utah, J. A. Wright, J. P. Sorensen, C. A. Hickenlooper; Vermont, F. A. Waugh; Virginia, William B. Alwood, J. L. Phillips; Washington, J. E. Baker; Wisconsin, W. A. Henry, E. S. Goff.

Whenever nursery stock and other horticultural property imported into this state bears a certificate of apparent freedom from dangerous insects and contagious plant disease signed by one of the inspectors on the foregoing list and dated not earlier than the first day of July last preceding, sellers of stock so certified who hold for their own premises valid certificates from this office, are hereby authorized to substitute the certificate of this office for certificates of inspectors of other states as named above.

S. A. FORBES, State Entomologist.

PRINCIPAL EFFECTS OF THE LAW.

1. As a result of the annual inspection of nursery stock, followed as it has been by critical observations from this office in all cases requiring them, a rapid improvement in the condition of Illinois nurseries is manifested, especially in those parts of the state where the same region was covered both years by the same inspector. Insects found too generally prevalent on the first inspection have largely disappeared from nurseries, old and worthless stock has been cleared out and destroyed, and evidences of greater care in management are generally noticeable.

2. The detection of the San Jose scale in six of these nurseries and its complete destruction there before it had been disseminated to any serious extent, and the discovery of the crown gall as an important nursery pest much too prevalent in many comparatively small and neglected nurseries, are also notable benefits resulting from this inspection. Furthermore, the accumulation of a very large amount of information with regard to common insects of the nurseries, those injurious to the property of the nurseryman rather than to that of his customer, will enable me to prepare a particularly valuable article on the subject of nursery pests.

2. The supervision of importations of nursery stock which the law has required has undoubtedly prevented in great measure the introduction into the state of worthless and infested trees. As long as Illinois had no such law it was certain to be the dumping-ground of unprincipled dealers anxious to free themselves of dangerous or suspicious property which they were unable to sell in states by restrictive legislation. It should further be noticed that a law of this kind has now become practically necessary to the nurseryman if he does business outside of his own state, since without inspection and an official certificate thereof his products are excluded from most of the best markets of the country.

4. Our inspection of orchards with reference to the San Jose scale has resulted in an early discovery of this insect in many localities where it would otherwise have remained unnoticed until it had spread extensively and done great and irremediable harm. As a general result of insecticide operations, about 14,000 trees have been treated on one hundred and fifteen infested premises, half of them by fumigation and the other half by spraying either with whale-oil soap solution or kerosene emulsion. On the whole I can not doubt that the new law is a useful one, and that it should be maintained in substantially its present form. Although it has been occasionally criticised, it seems on the whole to have met the almost unanimous approval of those most nearly concerned.

NEW YORK NURSERY INSPECTION.

The following is a summary of the work done in the San Jose scale division in the New York State Department of Agriculture for the year 1900 up to December 1st: Three hundred and ninety-five certificates issued on 6,013 acres nurseries and 657 acres vineyards; 414 duplicate certificate for other states; 3,065½ acres orchard inspected; 1,522 acres vineyards; 143 acres strawberries; 66½ acres raspberries; 22 acres blackberries; 4½ acres gooseberries. Orchards contained 399,271 trees—about three-fourths in bearing.

R. R. HARRIS, HARRISVILLE, W. VA., Dec. 21, 1900.—“I enclose \$1 to renew my subscription for 1901. Your journal has been worth many times the price to me during the past year.”

WESTERN WHOLESALEERS.

Thirty nurserymen attended the semi-annual meeting of the Western Wholesale Nurserymen's Association in Kansas City last month. It was the unanimous opinion that there will be a considerable rise in the prices of nursery stock before spring. It was reported that the available stock is the shortest on record and that it cannot meet the spring demand. It was declared that apple trees will be very short; also cherries Pear and peach trees will also be scarce.

The following officers were elected: President, A. L. Brooke, Topeka, Kan.; vice-president, R. H. Blair, Kansas City, Mo.; secretary and treasurer, E. J. Holman, Leavenworth, Kan.; executive committee, Peter Youngers, Geneva, Neb.; A. Willis, Ottawa, Kan.; E. S. Welch, Shenandoah, Ia.; J. H. Skinner, Topeka, Kan.; A. C. Griesa, Lawrence, Kan.

NEW NURSERIES IN TENNESSEE.

Editor NATIONAL NURSERYMAN:

Enclosed please find check for \$1, in payment of my subscription to the NATIONAL NURSERYMAN. Please quote me advertising rates.

I have a surplus of 500,000 strawberry plants. I am planting extensively of nursery stock. I have just finished planting 200 bushels of peach pits and will have some 400,000 June budded peach trees for fall 1901. A large lot of apples, pears, and cherry stocks will be planted in the spring. I will plant 50 acres in strawberries for plants, and, all-told, I will have 80 acres in nursery. There is another nursery started near this place that will have 80 acres or more another year. The gentleman's name is D. W. Hunter, Chattanooga, Tenn.

Sherman Hights, Tenn., Dec. 21, 1900.

H. LIGHTFOOT.

SUBSTITUTED BETTER VARIETY.

A Baraboo, Wis., correspondent of the American Florist says: “In the trial of the recent case of J. G. Stein against Charles Hirschinger, the jury returned a verdict in favor of the latter. Some years ago Stein purchased 500 apple trees supposed to be Duchess of Oldenburg and claimed that all but 100 proved to be inferior kinds. Expert witnesses testified that the trees said to be inferior were the Milwaukee, a better variety than the Duchess in this section. Stein sued for \$1,000 damages.”

FUMIGATION IN CALIFORNIA.

Nearly 1,500,000 trees have been fumigated this season, which is more than double the number looked after last year, says the Los Angeles Express. Nearly 1,000 tents have been in operation during the past season, as against 500 last year. Next year 1,500 tents will be at work. Many ranchers are purchasing tents for individual use, as the benefit of fumigation is beginning to be more thoroughly recognized.

The cost of fumigating a tree is about 40 cents, but the grower is more than repaid for this outlay, for it costs more to wash the fruit infested with scale than it does to fumigate.

In Nursery Rows.

STOCKS FOR JAPAN PLUMS.—The Storrs and Harrison Co., Painesville, O., replying to a query in the Rural New Yorker, say: "Whenever the climate is cold enough to injure peach roots, we would not advocate budding Japan plums on them. Where the winters are not so severe, and peach trees will stand all right, Japan varieties seem to unite and do rather better on peach roots than they do on Myrobalan, and many of the large orchardists are using them on peach roots in preference to plum. Of course, anyone that plants them on peach roots should understand that they are subject to attacks of borers, like peach trees. Budded on Myrobalan stocks they can be planted and grown successfully in a good many northern sections where peach trees will not stand."

APPLE ROOT GRAFTS.—Ben Davis is one of the easiest varieties to make and depend upon its own roots, says H. E. Van Deman in Rural New Yorker. When any tree does this, it shows an inherent vitality that is very desirable. Such trees are usually hardy and vigorous, and they are better for being on their own roots than on those of a less stable kind. The fact that lower or old part of the root system may decay will not seriously affect the upper part, because the latter is healthy and independent of it. By using a short piece of root to keep the scion alive until it has had opportunity to make roots of its own, and planting it deeply, there may be produced more hardy and vigorous trees than those grown upon roots of seedlings which are of uncertain if not positively tender and feeble constitution. This, of course, would necessarily depend upon the variety used being hardy and vigorous.

MYROBALAN PLUMS.—Regarding the present status, Prof. F. A. Waugh, of Vermont, says: The history of the Myrobalan plums was pretty well ransacked by Bailey in 1892. At present the Myrobalan plums are used chiefly, as they always have been, as stocks for budding or grafting other plums. Marianna is least of all an exception to this statement. They have many distinct advantages for this purpose, the principal advantage being their ready growth from seeds or cuttings. When stocks are grown from cuttings, as of Marianna, much greater uniformity is secured; and this is a great gain. Myrobalan stocks are still imported in considerable quantities from France. The Myrobalan stocks have some weaknesses, however; as for example, they are not hardy enough in the North, and they tend to dwarf certain strong growing varieties. For this reason nurserymen are anxiously experimenting in the hope of finding something better; and some propagators, thinking that something better has been found, have taken to Americana stocks at the North, or to peach stocks at the South.

THE EVERBEARING PEACH.—Having recently had opportunity to examine a specimen of the Everbearing peach it is a pleasure to give a very favorable opinion of it, so far as the size, appearance and quality of the fruit are concerned, says A. E. Van Deman in American Gardening. What the tree may be I cannot tell from experience. The size of this peach is large; the shape is about that of the ordinary peaches; the color is reddish purple over a white ground, with stripes and flecks of a darker shade. The flesh is white, with a mixture of red next the seed and skin and very tender when fully ripe. The flavor is superb, rich, delicious and very satisfying. I never ate a better peach. If these points are well sustained by the variety and the tree is hardy and productive, which are reported to be true, it is a valuable addition to our peach list. The peculiar quality of blooming and ripening during a long period makes it not only an interesting novelty, but a very convenient and desirable peach for family use. Judging by the appearance and inside characteristics of the fruit I judge it to belong to the Indian or Spanish type of peaches. The varieties of this type are usually very productive and well able to endure more extremes of temperature, both hot and cold, than any of the other types. The Everbearing Peach is well worthy of a general trial.

EVERGREEN SEEDLINGS.—Clarence Wedge, Albert Lea, Minn. in a report to the Minnesota Horticultural Society said: Red cedar seed is very difficult to handle. Really, I must acknowledge that I have just one good stand of red cedar. We gather our seed, rub off the pulp, stratify it in sand, and then bury it so that the top of the box is four or

five inches below the surface of the soil, and there it remains until a year from the following spring, about eighteen months, in the ground. It is probably safer to sow the seed in the fall and mulch it well, for if you do not get it sown very early in the spring it will grow in the box and, of course, be spoiled. I tried by soaking the seed in different solutions of caustic potash to avoid this long stratification and found there was a certain solution that would start it the first year. But in that case you want to let your bed stand for two years, as a goodly share will not even then germinate till the second year, and by pulling out the first year's crop quite early you can hope for a fair volunteer crop the second year. I think the red cedar should be planted more extensively in the northwest. The Ponderosa pine should also be grown more. It is a great drouth resister. It grows a great deal slower than the Scotch pine for the first few years, but it remains more dense in its lower foliage, and I think is a far more desirable tree. As it gets older, unlike the Scotch pine, it remains thrifty. In the nursery the Austrian pine and the Ponderosa, the former dark green and the latter bright green, discolor and are therefore objected to by nurserymen. When they get to be four or five feet high they remain far more beautiful and bright than many of the evergreens that do not turn so brown in the nursery.

G. A. GAMBLE'S PURCHASE.

G. A. Gamble of the Gamble Nurseries at Ft. Smith, has purchased the entire stock of The Benton County Nursery Co., which will be merged into one enterprise with headquarters at Bentonville, Ark.

Mr. Gamble claims to have about sixty thousand two-year old apple trees and a big assortment of other stock which he will sell at very low figures.

The following notice is from the Benton County Democrat:

G. A. Gamble, proprietor of the Gamble Nurseries at Ft. Smith, was in the city last week and bought out the Benton County Nursery Company of this city. Mr. Gamble will continue the nurseries under the old name and will make his headquarters at Bentonville. S. H. Sheldon, who has been foreman of the old nursery company for the past sixteen years will be retained. It is needless to state that his qualifications and integrity are unquestioned, as his experience and conduct in past years have proved him to be a man of great worth. Parties ordering trees from this nursery can rest assured that they are true to name and just as represented.

HARD-SHELLED SEED.

Regarding hard-shelled seed, C. S. Harrison, York, Neb., says in American Gardening:

Directions often say "scald them." This is indefinite. I have known people to boil honey locust seed. That is death. I have much experience in this line. These seeds vary; a light scalding will kill some and not reach others. I bring water to the boiling point and pour on the seeds in a tub and stir vigorously for fifteen minutes. This equalizes the heat without danger. Then cover up for three days, skim off the swollen seeds and plant. Scald and skim off again. It usually takes three scaldings to reach them all. Mark another thing; If the ground is dry you will lose the whole thing. If these swollen seeds dry they can never come up. I have a barrel on a cart and give the furrow a good soaking. Make a furrow with the hoe and as wide as the blade and about three inches deep; soak this thoroughly, cover the seed in dry time five inches deep till they germinate, then rake off to three inches. In this way, in a dry season, I have had a wonderful stand.

A shipment of 100,000 peach trees from Georgia nurseries, bound for Cape Colony and Natal, South Africa, was made last month. Following the instructions of the English colonial secretary, State Entomologist Scott went to Augusta to inspect the trees and report their condition by cable to the British authorities. Last year a shipment of half the size of the present one was made, but the trees were held at Ladysmith because of the Boer war.

Obituary.

Louis Ritz, exporter, Hamburg, Germany, died suddenly recently. He had been interested in the sale of nursery stock in America.

Horace W. S. Cleveland died at Hinsdale, Ill., Dec. 5th. He was a landscape gardener of the first rank. He was born at Lancaster, Mass., in 1814. After being associated with Frederick Law Olmsted at Prospect Park, Brooklyn, he moved in 1869 to Chicago. He had charge of many important works, among which may be mentioned Washington Park, Chicago, and Drexel Boulevard, which were arranged and planted from his designs and under his direction; Roger Williams Park, Providence, R. I.; the grounds, walks and drives about the Natural Bridge, Virginia; the grounds of the Jekyll Island Club, Brunswick, Ga.; Como Park, St. Paul; all the parks in Minneapolis and Omaha; Brookside, Indianapolis, Ind.; the grounds of the state capitols at Topeka, Kans., and Madison, Wis., and Sleepy Hollow Cemetery, Concord, Mass. Mr. Cleveland was for twelve years corresponding secretary of the New Jersey Horticultural Society. He was an honorary member of the Massachusetts Horticultural Society, of the American Park and Outdoor Art Association and several kindred organizations. He published several volumes on horticultural and other topics.

Long and Short.

Strawberry plants at Flansburgh & Peirson's, Leslie, Mich.

Benjamin Chase, Derry, N. H., offers a full assortment of labels.

Small fruits are a specialty with Allen L. Wood, Rochester, N. Y.

Apple in leading sorts may be had of W. B. Cole, Painesville, Ohio.

An opportunity to trade is offered by the Emporia Nurseries, Emporia, Va.

Apple seedlings to close out are offered by the Hawkeye Nurseries, Stratford, Ia.

A special offer on small fruit plants is made by H. W. Henry La Porte, Ind.

The surplus list of W. T. Hood & Co., Richmond, Va., appears in another column.

Evergreens, a large and fine stock, may be secured at C. L. Whitney's, Warren, O.

The Bordeaux nozzle, for spraying, made by the Deming Co., Salem, O., is popular.

Peach trees for spring shipment are offered by J. Van Lindley Nursery Co., Pomona, N. C.

Apple seedlings all grades, in bargain lots are ready at A. C. Griesa & Bro's., Lawrence, Kan.

Asparagus, grown at Geneva, N. Y., can be had of the Whiting Nursery Co., Boston, Mass.

A general line of high grade nursery stock is offered by the F. H. Stannard Co., Ottawa, Kan.

The Eagle plum, everbearing, and a new hardy evergreen are offered by Baker Bros., Ft. Worth, Tex.

Gilbert Costich, Rochester, N. Y., has a good stock of plums, standard pear and apple; also ornamentals.

Both fruit and ornamental stock may be obtained of Rakestraw & Pyle, Willowdale, Pa. Write for estimates.

Scions of Fameuse and Esopus Spitzenburg are wanted immediately at West Michigan Nurseries, Benton Harbor, Mich.

Willis' nurseries, Ottawa, Kan., offer cherries, apples, Keiffer pears grapes, peaches, gooseberries and a general assortment of shrubs

Irish Juniper, Lebanon arbor vitae, peach trees and evergreens will be sold cheap to close out, by Chas. L. Longsdorf, Floradale, Pa.

The Albaugh Nursery and Orchard Co., Phoneton, O., has 100,000 peach trees, first class, medium sizes of leading sorts, 10,000 cherries and other trees.

Hardy rhododendrons and azaleas, clematis, roses, fern balls, bay trees, etc., may be had of Bobbink & Atkins, Rutherford, N. J., growers and importers.

Jackson & Perkins Co., Newark, N. Y., will send their horticultural trade bulletin to any member of the trade free. This company has ornamental and fruit stock of fine quality.

Satisfaction is guaranteed by J. G. Harrison & Sons, Berlin, M. D., who offer stock in good condition of strawberry plants, Kieffer and other pears, peach trees, York Imperial and other apple trees, asparagus roots and Silver maples

Citrus, olives, walnut and fig trees and grape vines can be obtained at the Fancher Creek Nurseries, George C. Roeding, Fresno, Cal., headquarters for the famous California Smyrna fig. Liberal discount to the trade. Specialties are field grown roses and hardy palms.

The Pomona currant is a specialty with Albertson & Hobbs, Bridgeport, Ind. This firm has apple seedlings at special prices, standard pears, European plums, fruit and ornamental stock generally—a storage cellar filled with a fine lot of stock. Trade list ready February 1st.

J. G. Harrison of J. G. Harrison & Sons, Berlin, Md., called upon Rochester nurseryman early this month.

We are pleased to state that Mr. Brewer of the firm of Brewer & Stannard, who has been in Colorado for some time on account of poor health, is much improved.

219 **For 14 Cents**

We mail the following rare seed novelties.

1pk. Blue Blood Tomato Seed,	\$.15
1 " Northern Lemon Seed,	.15
1 " Mama's Favorite Onion Seed,	.10
1 " Emerald Green Cucumber Seed,	.10
1 " City Garden Beet Seed,	.10
1 " 13-Day Radish Seed,	.10
1 " La X. Market Lettuce Seed,	.15
3 " Brilliant Flower Seed,	.15

\$1.00

Worth \$1.00 for 14 Cents.

Above 10 packages rare novelties we will mail you free, together with our great illustrated Seed Catalog, telling all about

Salzer's Billion Dollar Grass
Also Choice Onion Seed, 60c. a lb.

Together with thousands of earliest vegetables and farm seeds, upon receipt of 14c. and this notice. When once you plant Salzer's Seeds you will never do without.

JOHN A. SALZER SEED CO., LaCrosse, Wis.

VINCENNES NURSERY — SURPLUS SPRING — 1901

Apple. $\frac{1}{2}$ to $\frac{3}{4}$ and $\frac{1}{2}$ to $\frac{3}{4}$, two and three year. Strong on Jonathan and York Imperial.

Blackberries. Strong plants, Snyder, Stone's Hardy, Kit-tatiny and Western Triumph.

Currants. Two year, No. 1, good assortment.

Grapes. Two year, No. 1, good assortment.

Strawberries. Leading varieties, strong plants.

Carolina and Volga Poplar. All sizes by carload.

Silver Maple. $1\frac{1}{2}$ to 2 inch, 12 to 15 feet.

American Elm. 8 to 10 feet.

Good Assortment of Other Stock.

W. C. REED,

...

Vincennes, Ind.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT,

39 AND 41 CORTLANDT STREET, NEW YORK.

Sole Agent for United States and Canada.

Eagle Plum Everbearing—Bears from June 17 to Aug. 28, 10 weeks.
Neverfailing—Has borne 28 years in succession.
New Hardy Evergreen Nothing else like it.
Handsomest ever offered

Write for description and price of both the above.

BAKER BROS., FT. WORTH, TEXAS.

Willowdale Nurseries

200,000 Peach Trees, Extra fine quality.
 Keiffer Pears. All sizes.
 Apples. First class, medium and one-half inch.
 Large stock of Apricots, Gooseberries, Currants.
 Norway Spruce, American Arborvitae and other Evergreen Trees.
 An immense stock of Maples, Lindens, Carolina Poplars and other shade trees.
 200,000 Osage. Two year and one year. Extra fine.
 California Privet. One year and two year.

Write for estimates on your needs

Rakestraw & Pyle, Willowdale, Pa.

Here We Are with **APPLE SEEDLINGS**

All Grades Straight and Branched Roots.

200,000 IN BARGAIN LOTS. Also a general line of stock

ASK FOR sample and prices, AT ONCE.

A. C. Griesa & Bro., LAWRENCE, KANSAS

WANTED

I want to hire a foreman for a general nursery business, state age, experience and references.

Address E. I. MARTIN, Redlands Nursery, Redlands, Cal.

Complete Line of

PEACH TREES

2000 Irish Juniper

100 Siberian Arbor Vitae

50 Story's Arbor Vitae

25 Retinspora Plumosa

Evergreens will be sold cheap to close out

C. L. LONGSDORF Floradale, Pa.

Wanted! Nursery Foreman

A superintendent for one of the largest American Nurseries, mainly ornamental. Must be competent to handle labor and cultivation with great skill and have a knowledge of Trees, Shrubs, &c., and most economic methods in nursery work. Only a man of the highest ability wanted, and such a man can receive fine inducements.

ADDRESS. "NURSERY," P. O. Box 2718, NEW YORK CITY.

Evergreens

Again I offer to the trade a large and fine stock of Evergreens, from 3 inches to 3 feet. All in need of such stock will profit by getting my prices.

Large Stock Colorado Blue Spruce Sweet Chestnut Seedlings
 Very Large Stock Arbor Vitae and Norway Spruce

Get my Price List and Save Money

C. L. WHITNEY, Warren, O.

WE WANT

a thoroughly practical foreman to take charge of a nursery of 500 acres. Don't apply unless you know your business thoroughly, and are prepared to give references.

Nurseryman, care of The National Nurseryman, Rochester, N. Y.

Bobbink & Atkins, RUTHERFORD, N. J.

GROWERS AND IMPORTERS OF FINE

NURSERY STOCK

also Agents of Wholesale European Houses.

Hardy Rhododendrons

Hardy Azaleas

Clematis, large flowering and paniculata

Crimson Rambler, in bush and tree form

H. P. Roses, in dwarf and tree form

Rosa Rugosa, in bush and tree form

Japan Iris, Liliums and Fern Balls

Herbaceous Plants

Tree Roses

Palms, Buxus and Bay Trees

CORRESPONDENCE SOLICITED

I am Offering a Fine lot of APPLE

leading sorts, including 2000 Baldwin; Standard PEAR, with a good proportion of Bartlett; Peach in extra heavy and first class, with a surplus of Early Crawford. In **SMALL FRUITS** I offer Concord Grapes I-I, Kansas, Gregg and Miller's Red Raspberry, Victoria and Black Naple Currants at less than usual wholesale rates.

An extra nice lot of Weir's Maple, 2 year, 8 to 10 feet.

W. B. COLE, - - - **PAINESVILLE, OHIO.**

Nursery Partner Wanted

An experienced office man to run agents, can place his experience

against my capital; good habits, reputation and ability conditions.

Address NURSERYMAN, Kalamazoo, Mich.

THE END OF THE CENTURY

like the beginning of the year is an appropriate time for good resolutions. A fitting one for the average nurseryman would call for the placing of his order for labels early in the season, and we might also suggest the well known manufacturer of such articles.

BENJAMIN CHASE, DERRY, N. H.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Horticulture is emphatically the fine art of common life."—R. C. WINTHROP.

Vol. IX.

ROCHESTER, N. Y., FEBRUARY, 1901.

No. 2.

STOOD BY THE PRESIDENT.

Split Between Nurserymen and Fruit Growers Narrowly Averted at Annual Meeting of Western New York Horticultural Society—President Barry's Appeal Finally Prevailed—Nurserymen Objected to Action upon San Jose Scale Bill—Lively Discussion.

The forty-sixth annual convention of the Western New York Horticultural Society was held in the Common Council chamber, Rochester, January 23-24. President William C. Barry, of the firm of Ellwanger & Barry, presided, and among those present was the senior member of that firm, George Ellwanger, one of the oldest and best known nurserymen of the country.

Other well-known nurserymen, fruit growers and scientific men present were Professor W. H. Jordon, director of the State Experiment station at Geneva; J. H. Hale, the "prince of peach growers," of South Glastonbury, Conn.; Professor W. G. Johnson, state entomologist of Maryland, who is representing the "American Agriculturist"; Professor F. A. Waugh, of the agricultural experiment station, Burlington, Vt.; Professor Enos H. Hall, of the state college, Pennsylvania; Professor W. M. Munson, of Orono, Maine; F. E. Dawley, of Fayetteville, superintendent of the Bureau of Farmers' institutes; Professor M. V. Slingerland, of Cornell University; George S. Josselyn, of Fredonia; S. D. Willard, of Geneva; J. S. Woodward, Lockport; R. G. Chase, Geneva; D. H. Henry, Geneva; C. M. Hooker, Rochester; Irving Rouse, Rochester; F. E. Rupert, Seneca; George A. Sweet, Dansville; Albert Wood, Carlton Station; L. T. Yeomans, Walworth.

The plan of limiting admission to the convention hall to those who have paid a fee of one dollar and secured a membership was an innovation but it worked satisfactorily; over \$300 in membership fees were taken in at the first session. The society is now one of the largest bodies of its kind in the United States, its membership in round numbers being about 800. Last year the membership was 576; the increase came at this meeting.

The principal discussion of the convention was that regarding San Jose scale legislation. The rock upon which the society has long threatened to split was safely passed, but for a time there was some rough sailing. Disaster was averted only by the tact and straightforward steering of President Barry, coupled with the universal respect in which he is held by the members of the society in general.

At the morning session, S. Wright McCollum, of Lockport, had moved that the report of the legislative committee be made the first order of business at the afternoon session, after the report from the nominating committee had been made. This motion was passed almost unanimously. As every one knew, the report of the legislative committee dealt with the

efforts that have been made by the fruit growing element in the convention to secure a passage of a law compelling nurserymen to fumigate their stock in order to kill the pest known as the San Jose scale. The nurserymen have bitterly opposed this measure, claiming that the pest is as liable to be communicated by fruit as by trees. The debates on the subject at previous conventions have been long and caustic, and considerable personal feeling has been engendered. Mr. McCollum, who made the motion, is himself a member of the legislative committee, and has been particularly active at Albany in behalf of the measure.

The report of the nominating committee had just been brought in at the afternoon session naming Mr. Barry for reelection as president and the vote was about to be taken on this office, when Mr. Barry called Mr. Woodward to the chair, stating that he had something which he must say to the convention. In a speech verging at times on the impassionate, Mr. Barry besought the convention not to depart from the time-honored policy of the founders of the society to allow no question which might create serious differences of opinion to be carried into the convention. He protested that in all of his career as president of the society he had never sought to influence its members to endorse any measure which might favor the nurserymen. He had left all such matters outside the convention hall and had tried in the spirit of fairness to promote only the growth and harmony of the society. He thought the fruit growers in the convention ought to maintain the same spirit of fairness and not seek to secure the endorsement by the society of a measure which was purely a piece of class legislation. If the discussion of such questions were persisted in, he said, it was bound to split the society, and he finally declared that he could not accept the office of president, unless the members of the society would agree to drop the discussion of such questions in the future.

It was realized that President Barry's wishes, if observed, would shut out the report of the legislative committee. E. A. Powell, of Syracuse, chairman of the committee on nominations, defended Mr. Barry's position, and urged that in the interests of unity and harmony, the society defer to his wishes.

Mr. McCollum joined issue squarely with President Barry. He declared that while the society respected its president and wanted to see him re-elected, it would not submit to being "throttled" in its right of discussing matters which pertained to the most vital interests of the fruit growers and whose suppression, he declared, could only benefit the pockets of the nurserymen. "Self preservation," said Mr. McCollum, "is the first law of nature, and that's what we're here for. We don't propose to be eaten up by a whale and there are several whales in this society."

In the sally and laughter which greeted this statement, Mr. McCollum essayed a motion that the secretary be instructed to cast a ballot for Mr. Barry, but without the proviso of sup-

pressing discussion on the proposed subjects. Before the motion could be put, George A. Sweet, of Dansville, jumped to his feet and warmly supported Mr. Barry's contention. "This is not the legislature of New York," he shouted. "We are a horticultural society, and as such seek to promote its best interests." "Yes," interrupted Mr. McCollum, "by seeking to prevent legislation which is of vital importance to most of its members!"

"Sit down! Sit down!" a score of members shouted at Mr. McCollum, while one excited member in the front row jumped up and shook his fist at the speaker, at the same time declaring that the latter was no gentleman. Things looked favorable for a bad eruption, when Samuel W. Smith, the suave and witty fruit grower of Albion, poured oil upon the troubled waters.

Further discussion was cut short by the Chairman Woodward presenting a motion by Mr. Powell that the secretary be instructed to cast a ballot for Mr. Barry for president, with the understanding that the matter to which he objected should not be discussed. The motion was carried by an overwhelming majority and when Mr. McCollum again sought to get the floor he was drowned by cries of "Put him out!"

Later in the session Mr. McCollum again called for the report. "I think the gentleman is out of order," said President Barry, evidently desirous of averting the storm which he saw was coming. "I am not out of order," warmly protested Mr. McCollum. "This body by a unanimous vote decided to have that report this afternoon. It has paid out its money to bear the expenses of the legislative committee and now it wants to know what it has to say."

"I dislike to say this," said President Barry with cutting distinctness, "but the fact is that every dollar of that \$500 was paid by the firm of Ellwanger & Barry. Moreover, this meeting decided only a few minutes ago that such matters as this should not be brought up for discussion. I therefore rule that Mr. McCollum is out of order."

"I appeal from the decision of the chair," shouted Mr. McCollum, jumping up on the platform beside President Barry and waving his arms toward the audience. "I want to submit to this convention the question whether or not they want to hear this report."

"No, we don't want it," shouted perhaps a score of voices. "Report! Report!" came back an answering chorus from what was evidently a majority.

The president said the report might be presented, but it was then learned that the chairman of the committee was not present. The matter was put over.

On the second day of the convention it was evident that wise counsels had prevailed, for S. D. Willard, chairman of the committee on legislation, he said the committee had been unsuccessful in securing the desired legislation. It was suggested that a conference on the San Jose scale question be held between the Eastern New York and Western New York societies' committees on legislation.

"I am happy to state," said Mr. Willard, "that the differences have been arranged so that they will not arise again in this society's conventions."

The settlement is to the effect that if this year after an examination of the books of the commissioner of agriculture, it is found that injury by the pest is increasing, then the nurserymen will stand by the fruit growers in efforts to eradicate it.

The nurserymen and the fruit growers will unite in asking the legislature to appropriate \$25,000 additional for inspection purposes. The commissioner of agriculture believes he can control the scale with this additional appropriation.

The following officers were elected :

President, William C. Barry, of Rochester; vice-presidents, S. D. Willard of Geneva, Albert Wood of Carlton Station, J. S. Woodward of Lockport, and T. B. Wilson of Hall's Corners; secretary-treasurer, John Hall of Rochester. Executive committee, C. M. Hooker of Rochester, H. S. Wiley of Cayuga, Edward M. Moody of Lockport, Wing R. Smith of Syracuse, George G. Atwood of Geneva.

CANADIAN LAW AMENDED.

The following official notice has been received:

Order in Council.—At the Government House at Ottawa, Saturday, the 5th day of January, 1901. Present: His Excellency the Governor General in Council.

His Excellency, in virtue of the provisions of section 5, chapter 23, 61 Victoria, entitled "An Act to protect Canada from the Insect Pest known as San Jose Scale," and of 63-64 Victoria, chap. 31, "An Act to amend the San Jose Scale Act," and by and with the advice of the Queen's Privy Council for Canada, is pleased to order that exemption from the operations of the above mentioned Act shall be and is hereby authorized of any trees, shrubs, plants, vines, grafts, cuttings or buds, commonly called Nursery Stock from any country or state to which "The San Jose Scale Act" applies; and that all importations thereof shall be and are hereby permitted to be entered at the Custom Ports only of St. John, N. B., St. John's, Que., Niagara Falls and Windsor, Ont., and Winnipeg, Manitoba, between the following dates in each year: 15th March to 15th May in the Spring, and 7th October to 7th December, in the autumn; and at Vancouver, British Columbia, during the winter months only from 15th October to 15th March, at which ports they will be thoroughly fumigated with hydrocyanic acid gas by a competent Government official in accordance with the most approved methods.

All shipments made in accordance with the above will be entirely at the risk of the shippers or consignees, the Government assuming no risk whatever.

Packages must be addressed so as to enter Canada at one of the above named ports of entry, and the route by which they will be shipped must be clearly stated upon each package.

As it is well known that well matured and thoroughly dormant nursery stock may be safely treated, but that there is danger of serious injury to the trees if fumigated in the autumn before the buds are thoroughly dormant, or in the spring after the buds have begun to unfold, all stock which when received is immature or too far advanced for safe treatment will be refused entry and held at the risk of the shipper.

His Excellency, in virtue of the provisions of section 7 of the Act first above mentioned, is pleased to direct that the authority herein granted be published in the Canada Gazette.

JOHN J. MCGEE,
Clerk of the Privy Council.

SAN JOSE SCALE NOT FEARED.

Prof. John B. Smith, state entomologist of New Jersey, says: Where the San Jose scale is worst, success in checking it is greatest because the growers are alive to the necessity for active operations. Crude petroleum as a winter application will prove the most successful insecticide. The mechanical mixture of kerosene and water, 10 to 15 per cent. kerosene, answers perfectly for summer treatment. The damage is locally a serious matter and has cost some orchardists a few hundred trees; but there is nothing that has affected the total fruit crop. There is no prospect whatever of extermination, but every indication that control will be complete so that none but the man who is unfit to grow fruit will be hurt.

HORTICULTURAL INSPECTORS.

Society for the United States and Canada Formed at a Conference of Inspectors of Seven States Held in Chicago Last Month—Methods and Objects of Nursery Inspection were Broadly Discussed—Prof. Forbes, of Indiana, President.

At a conference of horticultural inspectors of the states of New York, Michigan, Indiana, Illinois, Iowa, Kentucky and Tennessee, held at the Palmer House, Chicago, January 4th, 1901, the general subject of the methods and objects of nursery inspection was broadly discussed, with special attention to certain details in which a comparison of views was thought to be particularly desirable.

Through the courtesy of Prof. S. A. Forbes, state entomologist, Urbana, Ill., the president of the new organization of horticultural inspectors, we are enabled to give the following concise summary of the proceedings at this conference:

1. Difficulties having been made by certain state officials with respect to the acceptance of inspection certificates from other states, this subject was discussed at length, and the opinion was unanimously expressed by the conference, that state inspectors should accept the inspection certificates of other states issued by authorities legally constituted for that purpose, as *prima facie* evidence of the facts therein set forth. It was not intended by this statement to prevent or discourage a supplementary inspection of certified stock if, in the judgment of any inspector, special conditions might make this necessary.

2. On comparison of the practice of different state inspectors, wide differences were found in the time during which nursery inspections are made, due principally to differences in local condition or business methods in different parts of the country. After full discussion it was decided that the period of inspection should be determined in each state at the discretion of the inspector, but it was agreed that all *peach* stock should be inspected as late in the season as practicable, particularly where the surroundings were such as to cause suspicion of the occurrence of the San Jose scale, or where the origin of the buds was either suspicious or unknown. In such cases, if the nursery was inspected early, a late supplemental inspection of the peach stock should be made.

3. With respect to a nursery some sections of the stock of which is so infested or infected as to make its sale objectionable, but not in a way to damage or endanger the remainder of the stock, the practice adopted in Illinois was approved and recommended to all inspectors. Under this practice a nurseryman some of whose stock is infected, for example, with the crown gall, the remainder of it being free, is given a certificate which reads as follows: "This is to certify that the nursery stock which bears this certificate, grown on the nursery premises of, situated, has been inspected," etc., etc. This certificate is issued with the limitation, expressed in writing, that it is not applicable to any of the stock to which objection is made, and on the written promise of the nurseryman receiving it that it shall not be so applied.

4. With respect to a form of certificate for dealers in nursery stock who do not own nursery premises, but wish a certificate from their own state inspector available for their shipments, the Iowa practice was approved, under which a dealer's certificate is issued as follows: "This is to certify that the nursery stock for sale by, of, has been inspected," etc., etc. Previous to issuing such a certificate the Iowa inspector requires a statement from the dealer, certified before a notary, showing all persons from whom said dealer has purchased stock, and containing a promise that if stock is afterwards purchased from other persons than those on this certified list the inspector will be notified forthwith and opportunity given him to inspect such stock before sale, if so desired.

5. It appeared upon a comparison of the laws and practices of different states that ornamental trees, shrubs and vines, were generally included in the inspection, if grown for sale, and that strawberry plants were also inspected, if held for sale, in New York, Kentucky,

Tennessee, Iowa and Michigan, but not in Indiana and Illinois. In states having a considerable business in the sale of grape cuttings, it was deemed necessary that vineyards from which such cuttings are sold should be inspected and certified as nurseries.

6. It was generally agreed with respect to the woolly aphis that gradually increasing pressure should be brought to bear for the reduction of this insect in nurseries, but that no uniform practice could be established because of wide differences in its abundance in different states. The New York practice of requiring the rejection and destruction of trees sufficiently infested to show knots on the roots was commonly approved. It was also thought well to require insecticide treatment, with kerosene emulsion, of roots of nursery trees whitened by this insect. A similar policy of gradually increasing pressure of requirement was also recommended with respect to the scurfy scale, particularly in those states where it is not now generally and uniformly distributed. It was held at present to be unwise to require the destruction of trees exposed to infection with crown gall but not visibly so infested. Trees actually bearing this gall either at the crown or on the roots were regarded as unmerchantable.

7. After full discussion it was voted unanimously to organize as a society of official horticultural inspectors, membership to be open to those officially connected with the work of horticultural inspection in the various states of the Union and in Canada, and Prof. S. A. Forbes, of Illinois, was elected president. It was further voted that the first meeting of the new society should be held at the same time and place as the annual convention of the Association of Colleges and Experiment Stations, to which time the society adjourned.

NURSERY STOCK FOR CANADA.

N. B. Colcock, custom house broker and forwarder, Niagara Falls, Ont., has issued the following announcement under date of January 7, 1901:

I am just in receipt of a letter from Professor Fletcher, Dominion entomologist, Ottawa, giving me in advance the date of the spring fumigating season for 1901. The fumigating station at Niagara Falls will be open from the 15th of March to the 15th of May, the regulations to be the same as formerly in vogue.

Nursery stock must pass customs at the port where fumigated. This regulation saves the second handling of the stock, arrangements having been made for the custom examination to take place while the package is at the fumigation station.

If you will require my services to look after any shipments of nursery stock you expect to pass this port during the above open season, please advise me in advance, and in the meantime note the following as being necessary to avoid delays and probable damage to stock.

Ship via Suspension Bridge and Grand Railway, care of N. B. Colcock, Niagara Falls, Ontario. This stops the shipment for fumigation and customs entry, even if billed through to destination at through freight or express rates.

A properly certified invoice must either accompany the shipment or be mailed to me at the earliest possible moment—before shipment will be safer than after goods leave.

If you have not already furnished me with your power of attorney, write me and I will forward a blank, worded as required by the customs department.

If the foreign owner of the stock desires to make the entry (instead of the consignee) each shipment must be accompanied by a "Foreign Owner's Declaration," with the invoice made out to the said owners in my care. Blank declarations furnished on application.

Stock for fumigation must be marked "For Fumigation."

Bulbs, tubers, conifers, green house plants, herbaceous perennials and bedding plants, being exempt from fumigation, should be put up separate and marked "Not for Fumigation."

CAN TRULY SAY GOOD RESULTS.

THE HART PIONEER NURSERIES, FORT SCOTT, KAN. — "We can truly say that we have had good results from our advertisement in THE NATIONAL NURSERYMAN."

THE STATE SOCIETIES.

Resume of the Proceedings of Horticulturists at Annual Meetings

—Conditions In Kansas—Practical Observations Regarding the Growth of the Kieffer Pear in New Jersey—Indiana and Pen.

Insula Meetings—Nurserymen Head Lists of Officers.

KANSAS STATE.—Thirty-fourth annual meeting at Topeka, Dec. 27-29, 1900. In his report, the active and able secretary, William H. Barnes, said: "Local horticultural societies, here is the great point wherein we lack. There are 40 in the state; there should be 400; and if there were 400 live, local societies in our state, Kansas would be the garden of the world. The memberships run from 10 up to 170 to a society. Many of our counties should have three or four large, working societies within their borders. If they had, fake nurseries would stand no show; insect pests would be practically obliterated; every farm home would have its table supplied with the goodly products of the soil; importations of indigenous fruits would be rare; our canneries would be working on full time and full supplies; and our exportations of home grown horticultural products would be very large and Kansas fruits would rival California fruits in the markets of the world. Why do we import potatoes, onions, cabbage, berries, apples, plums, cherries, peaches, water- and musk-melons during the season when our own are being harvested and should have precedence in the markets of our state? The main reason, I believe, is the lack of association and combination for educational, practical and financial benefits, a lack of horticultural co-operation." Fred Wellhouse was elected president; W. H. Barnes, secretary.

NORTH CAROLINA STATE.—At Asheville, Dec. 19-23rd annual meeting. Resolutions were passed favoring increase of \$25,000 to Division of Vegetable Physiology and Pathology of the Department of Agriculture to extend study of plant diseases; and increase of \$10,000 to Division of Pomology, to extend present markets and open new ones, and to circulate facts of best methods of harvesting and marketing fruit. These officers were elected: President, J. Van Lindley, Pomona; vice-president, W. F. Massey, Raleigh; secretary-treasurer, Franklin Sherman, Raleigh.

NEW JERSEY STATE.—Twenty-sixth annual meeting, at Trenton, January 3-4. The Rural New Yorker says: "A most interesting debate followed the reply of President D. D. Denise to the question: 'Is it advisable to plant more Kieffer pear orchards?' President Denise said the tree is a nice, rapid grower, bears young, and is less subject to blight than other varieties; quality is much improved of late years, and now equal to some others; 25 per cent. of the orchards set are neglected and never come into bearing. The local markets are overstocked, but there is a good distant demand. His little orchard of 1,200 trees has made more money than the remainder of farm. Prices no lower than best apples, and the yield is greater. In 1900 the trees yielded over 200 barrels per acre, at net profit of 50 cents per barrel, or \$100 per acre. Neighbor with neglected orchard shipped ungraded Kieffers and got only *seven* cents per barrel net return! Best and highest colored fruit is grown on land not too rich. Should be planted from 20x20 to 35x35 feet apart for best results. Every second year in poor soils should have 1,000 pounds or more of good commercial fertilizer. Must always have good culture, thorough pruning and thinning. Should be picked and put in storage as soon as the fruit will separate from stem. J. S. Collins, the largest Kieffer pear grower in the state, said that the prices in 1900 were very low; could not dispose of all his crop in southern part of state. Discussion brought out the opinion that the canning test of 1899 was of no value, as many of the heaviest canners used a chemically prepared sweet, with 50 times the strength of sugar, to save expense. This was satisfactory when first put up, as the color was better than when sugar was used, but later the preparation attacked the cans, giving a tinny taste to contents, and even ate holes through the cans, causing a total loss. One packing firm lost \$50,000. Those canned with sugar found a good market, though the chemically prepared stock injured the sale of all; and doubtless caused the decline in value of Kieffers in South Jersey last fall, as the chemical tests were largely made in that portion of the state. Kieffers, picked when two-thirds grown, and ripened in

the dark, were of best quality, but carried to market poorly. Rust or clouding of the Kieffer received considerable attention. It is thought to be a weakness inherent in the Japan pears, as their skin is thin and tender, and is not caused by insects. Late frosts in spring, after fruit is set, early frosts in fall, excessive spraying, too thick foliage and lack of pruning were given as causes. It consists of a corky growth, favored by lack of ventilation. It will remain, but care, culture and pruning to let in sunlight will lessen it. The crop of Kieffer pears in New Jersey is ten times as great as all other varieties. Other good pears are Manning's Elizabeth, Clapp, Bartlett Seckel, Duchess, Anjou and Lawrence in order of ripening. They sold at \$2 to \$3 per barrel, while Kieffer did not bring more than \$1.25 on the average. These officers were elected: President, Henry E. Hale, Princeton; vice-president, W. H. Reid, Tennants; secretary, H. I. Budd, Trenton; treasurer, I. J. Blackwell, Titusville.

INDIANA STATE.—Fortieth annual session in Indianapolis, Dec. 18. President C. M. Hobbs said that the successful horticulturist of the future must make thorough preparation and employ scientific and up-to-date methods. He urged the necessity for an increased appropriation for horticultural work. The following officers were elected: President, C. M. Hobbs, Bridgeport; vice-presidents, Mrs. W. W. Stevens, Salem; George P. Campbell, Bloomington; Amos Garretson, Pendleton; J. C. Groosman, Wolcottville; secretary, Professor James Troop, Lafayette; treasurer, Sylvester Johnson, Irvington; executive committee, E. Y. Teas, Greens Fork; Joe A. Burton, Orleans; B. Custer, Loganport.

PENINSULA.—At Middleton, Del., January 9-11. Captain Emery contended that only whale oil soap and hydrocyanic gas are of use in the treatment of San Jose scale. Others argued that kerosene and crude oil are effective and cause no injury to the tree when applied in proper season. Orlando Harrison, of Berlin, Md., was elected president; A. N. Brown, Wyoming, Del., vice-president; Wesley Webb, Dover, Del., secretary-treasurer.

CALIFORNIA COMMENT.

Here is what they say in California. From the California Fruit Grower, January 12th:

Upon the assertion of Alexander Craw, horticultural quarantine officer, nursery stock is frequently received in this state, accompanied by the official certificate that it is free from injurious insects, but the trees upon inspection are found to be seriously infested with root borers and root aphids, as well as scale insects and egg-clusters of leaf-eating pests. The lesson to be learned from these facts is, that certificate or no certificate, all imported nursery stock should be inspected at destination and fumigated with hydrocyanic acid gas in the proper proportion. If this is done there will be less danger of introducing new insect pests into the state.

Nursery stock has been received here from Japan which has been accompanied with certificate to the effect that the trees had been disinfected before shipment, and there was every evidence that the trees had been really dipped, and yet upon examination a large percentage of the scale insects were found to be alive, that healthy eggs were present and that young were issuing from them. Neither an inspection of the nursery, nor a dipping of the nursery stock prior to shipment can take place of a prompt inspection and fumigation at the point of destination. If it is desired to keep new insect pests out of the state the plan suggested will be followed closely.

EASTERN NURSERYMEN'S ASSOCIATION.

The Eastern Association of Nurserymen has elected these officers: President, William C. Barry, Rochester; vice-president, C. H. Hawks, Rochester; secretary-treasurer, William Pitkin, Rochester; executive committee, Irving Rouse, Rochester; Wing R. Smith, Syracuse; George A. Sweet, Dansville; Charles J. Brown, Rochester; Charles W. Stuart, Newark.

CAN you afford to be without THE NATIONAL NURSERYMAN, the only journal in which you obtain nursery news exclusively, when it is only \$1 per year?

NEW YORK INTERESTS.

Nurserymen Decidedly Opposed to Legislation Proposed by Certain Fruit Growers of the Empire State, Who Would Have All Nursery Stock Fumigated, Greenhouse Stock Excepted—Eastern Association of Nurserymen Acts Promptly—A Vigorous Protest.

Again the nurserymen of the Empire State are confronted with proposed legislation which would seriously handicap an important industry. Assemblyman Phipps, of Orleans county, has introduced in the New York legislature the bill championed by Assemblyman Litchard last year, amended so as to make it still more objectionable to the nurserymen of the state, and of those in other states who deal with them.

The bill provides for certificates of inspection of nursery stock and for destruction, without compensation, of trees condemned by the commissioner of agriculture, and in conclusion reads as follows:

All trees, shrubs, plants, buds or cuttings, commonly called nursery stock, disseminated or planted in this state or forwarded in or out of it after the first day of July, nineteen hundred and one, must be fumigated with hydrocyanic acid gas in such manner as may be prescribed by said commissioner, such fumigation shall be done by the grower, consignee or consignor of such stock before dissemination or re-shipment, except such trees, shrubs, plants, buds or cuttings as are planted by the grower or propagator for himself, or such as from its nature and state of growth would be exempt, in such cases the said commissioner shall declare said trees, shrubs, plants, buds or cuttings free from such treatment. All such nursery stock forwarded by any transportation company must be accompanied with a certificate from the consignor that it has been fumigated as aforesaid. Should any such stock from out of the state be received in this state not accompanied with a certificate that it has been fumigated with hydrocyanic gas, it must be so treated by the consignee or consignor before planting, dissemination or re-shipment.

§ 2. The provisions of this act shall not apply to florist's greenhouse plants, flowers and cuttings commonly known as greenhouse stock.

§ 3. This act, except so far as it relates to fumigation, shall take effect immediately.

A meeting of the Eastern Nurserymen's Association was held in Rochester on January 16th, and the matter was discussed. The secretary, William Pitkin, sent the following communication to Assemblyman Isaac W. Salyerds, of the committee on agriculture, to which the bill was referred:

DEAR SIR—I am informed that on Wednesday last a bill was introduced into the Assembly and referred to the committee on agriculture, providing for the fumigation of nursery stock, and on the lines of a similar bill introduced a year ago. I have not yet had an opportunity of seeing a copy of the bill, but hope to do so within a day or two.

This association wishes to go on record early as decidedly opposed to any legislation of this character for the reason that, according to statements of the department of agriculture following the work done by its inspectors, the nurseries of the state to-day are practically free from San Jose scale and have received from the department of agriculture a clean bill of health. It would seem unnecessary that nursery stock which has been inspected and declared free should be fumigated, especially as to-day no one is able to say positively that fumigation will accomplish the desired result, or that fumigation will not injure the trees and plants subjected to it.

Such a law would also prove injurious to the nursery interests of this state in competition with the nurserymen of other states, for if the law is enacted our competitors in other states will at once say to our customers, or possible customers, that New York must be full of scale, otherwise the nurserymen of New York would not be obliged by state law to fumigate, and we are convinced that this would be a serious handicap to our business, for certainly it has proven to be such in Maryland, the only state, so far as I know to-day, that has a state law on these lines.

I assume that a hearing will be granted to parties interested, and therefore will not take up your time to-day with a long argument, but simply wish to record the opposition of this association to any legislation of this character and ask for an opportunity to be heard before any decision is reached by members of your committee.

The nursery interests in this state are very large and important and I am sure that your committee will not favor any legislation that will seriously injure such an important line of business.

Yours truly, WM. PITKIN, Secretary.

CLASSIFICATION OF APPLES.

In a recent bulletin, Prof. F. A. Waugh, horticulturist of the Vermont Experiment Station, discussing apples of the Fameuse type, says, regarding the classification of apples:

The second revision of Downing's "Fruits and Fruit Trees of America," which is the standard work on descriptive pomology for America, names 1,856 varieties of apples. This list was published in 1872, since which time there have undoubtedly been some hundreds of varieties introduced. In 1892 Bailey made a list of the apples offered in nurserymen's catalogues in the United States and Canada, and found that there were 878 varieties then named, propagated and held for sale.

Besides the varieties sold by the nurserymen at any given time, there are always many more not generally distributed but kept, coddled and prized in private collections, in small neighborhoods, or in out-of-the-way places. It seems a very moderate estimate, therefore, to say that there are 1,000 different kinds of apples in commercial circulation on this continent to-day, that there are over 2,000 varieties described in contemporary literature, and that there have been more than 3,000 separate sorts named and propagated in America within the period covered by our brief pomological history.

The impossibility of any man's knowing all varieties of apples will be evident from the foregoing considerations. These thousands of varieties are separated from one another by infinitesimal shades of difference. Some of them can hardly be told apart by the most expert pomologists and after years of acquaintance. The cultivated apples are remarkably homogeneous. They are (with very minor exceptions for certain crabs) derived from one original species. Compare this with the cherries,—two or three hundred varieties derived from two species,—or with the plums, where a thousand varieties are derived from ten or fifteen original species. In no class of fruits, unless it be possibly the strawberries, are varietal distinctions so thin and vexatious as in apples.

But while the characteristics of varieties of apples, taken all together, are so confusing, there are a few pronounced *types* which the horticulturist may fix in his mind, and round which cluster certain *groups* of varieties. The Fameuse presents such a type. There are several different apples of the Fameuse group, all differing measurably from Fameuse, but all conforming closely enough to the Fameuse type so that their close relationship with one another and with Fameuse may be readily recognized by the pomologist.

If the reader will consider the foregoing paragraph closely he will see what is meant by the important terms "type" and "group." They present the essentials of pomological classification. If our multitudinous varieties are ever to be classified, it must be by putting them into groups; and these groups must cluster about the more conspicuous, permanent and recognizable types.

In common language these groups are sometimes called "families," and some men speak of the "Fameuse family," the "Ben Davis family," etc. The idea is the same; but the terms "type" and "group" are more precise and convenient, aside from the fact that the word "family" has been pre-empted in plant study with another technical meaning.

A SUBSCRIBER FROM THE FIRST.

STANTON B. COLE, Bridgeton, N. J., June 12, 1900.—"Replying to yours of the 8th, informing me that my subscription expires with this issue, I enclose \$1 for the renewal. I think we have been with you from the first issue, and do not think we can get along without it now."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

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Annual convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., FEBRUARY, 1901.

AMERICAN FRUIT INDUSTRY.

It is well known among progressive nurserymen that the fruit industry, which made rapid strides during the closing year of the nineteenth century, has become one of the greatest in the country. A writer in Harper's Monthly estimates the fruit industry of the United States as amounting to at least a billion dollars annually. The grape growing industry, which has now reached such enormous dimensions in many states, is principally an event of the last quarter of a century. Within twenty years the strawberry producing area supplying the larger markets has increased to comprise eleven states, including Mississippi and Arkansas. In 1890 nearly 41,817,016 pounds of raisins were imported. Now California has reduced the imports to one-fourth of that amount. Twenty years ago there were not a dozen large prune orchards in this country, and ten years ago we imported nearly 60,000,000 pounds of prunes. To-day our prune orchards can produce 100,000,000

pounds, and importations have practically ceased. One county in New Jersey markets half a million baskets of peaches, and peach growing has recently become so extensive in Georgia that fruit is disputing the kingship in that state with cotton.

The apple crop of four years ago was estimated to have been worth \$150,000,000 to the growers. It is thought that the orange crop of California—estimated at from 15,000 to 18,000 carloads this year—will two years hence be sufficient to supply every market in this country and will need no tariff protection. The West is in many sections going largely into the fruit business and adding an area not thought of twenty years ago.

THE FOREST NURSERY.

One of the most valuable of recent bulletins of the U. S. Department of Agriculture is that on the forest nursery, by George B. Sudworth, Dendrologist, Division of Forestry, to which we have briefly referred heretofore. The bulletin opens with the statement, "The art of raising forest-tree seedlings and planting trees is but little known among farmers, for whom it has a very great economic interest." At the same time it is likely that nurserymen will find within the sixty-three pages of the bulletin information valuable because of its presentation by an expert.

There is little evidence that forests once existed to any extent on the western plains, but it is believed that trees can be made to grow in that region. "The thousands of bushels of black walnuts planted in the plains region of the West did not fail to germinate," says Mr. Sudworth; "but many of them failed to produce trees, for the very good reason that the seedlings lacked a continued supply of soil moisture. The thin foliage could not produce enough shade to prevent the rapid evaporation of melted snows and spring rains. Without shade to conserve these waters to the soil, and with few or no summer rains and no irrigation, it was natural that so many walnut plantations should have failed in the drier plains regions.

"In attempting now to establish forest trees in such dry treeless regions, the chief problem is to overcome these unfavorable conditions. This can be accomplished best by first starting the young seedling in the seed bed and growing it in the nursery until it is strong enough to maintain itself in the forest plantation. If the special needs of seedlings and young trees pointed out in this bulletin are supplied, the Western farmer may as successfully grow trees from the seed to maturity as he can farm crops. The eastern farmer has still better chances of success."

Space does not permit detailed reference to the many divisions of the subject as treated in the bulletin. The author writes entertainingly and instructively under the headings: "Collecting tree seeds and care before planting;" "Propagation of trees from seeds and cuttings;" "Wintering and transplanting seedlings;" "Use of wild seedlings;" "List of useful timber trees to plant."

A PLANT CENSUS.

In the century just closed, according to Prof. S. H. Vines, F. R. S., the number of recognized living species of plants has increased from 10,000 of Linnæus to 175,596, made up of 105,231 flowering plants, 3,352 ferns and fern allies, 7,650

mosses and moss-like plants, and 39,263 fungi, lichens, and algæ, says American Gardening. Prof. Saccardo estimates that the number of species existing is more than twice those yet known, or about 400,000. The growth in number of species has not been due to the discovery of any essentially new type of plants, and the only extension of the bounds of the vegetable kingdom has been through the annexation of groups formerly assigned to zoology. The bacteria, discovered 200 years ago, form the most notable of such groups, having been regarded as infusorian animals until their affinity with the fungi was recognized by Cohn in 1853. The figure given in any estimate of this nature will vary according to the botanist. If he be inclined to recognize as specific characters many points regarded by others as of only minor value, the estimate figure will be increased greatly.

CLEMATIS PANICULATA.

Besides the *Clematis paniculata* grown in the field, says Joseph Meehan in Florists' Exchange, nurserymen are adopting the plan of growing many vines and other plants in pots. Not only does this afford the chance to dispose of the plants in summer when there is often a quiet demand for them, but at all times the pot plant is much more sure to grow. The honeysuckle, for instance, if it has a heavy top, is much the better for a heavy pruning if dug from the ground. The pot plant needs no cutting back. *Clematis paniculata* is now well known, and known, too, as one of the most useful of the genera. The large-flowered kinds will always be in demand for their lovely blooms, but when a vine for shading is required, we turn from them to the division so well represented by *C. paniculata*. The latter may be termed a much improved *C. flammula*. For years the last named was the only kind that could be sold as sweet-scented. It is sweet-scented but it has not the bushy growth, lustrous leaves and profusion of flowers that characterize *C. paniculata*.

GROWING APPLE SEEDLINGS.

A correspondent of the Iowa State Register asks: "Is Prof. John Craig right in stating in the Register that dry apple seed will grow the first year if merely soaked in water for one day before planting?" Prof. J. L. Budd replied:

Dry apple and pear seed treated in this way would rarely give a single seedling the first year. They require soaking as early as February. They are then mixed with sand and put outside to freeze solidly. When thawed, the seed and sand are put in shallow boxes and set on the north side of a building. When again frozen, cover with straw to keep them frozen as long as possible. By planting seed and sand together as soon as four inches of the soil has thawed we get a perfect stand of seedlings. This applies to the very dry commercial seed we get at the West. If not allowed to get dry, the soaking for one day is all right.

A BLESSING TO EVERY NURSERYMAN.

ALONZO LOWE, Janesville, Cal., Jan. 7, 1901—"I have received several numbers of your journal. When I got the first number I soon decided to subscribe for it; but I have been away from home for several months and that is why I did not subscribe sooner. I want to take it as long as I grow and handle nursery stock. I think it is a blessing to every nurseryman who subscribes for it. I didn't know there was such a journal published until you sent it to me. I enclose money order for \$1 for one year's subscription, commencing with the January issue."

Among Growers and Dealers.

Harry Papworth has purchased 150 acres near New Orleans for nursery purposes.

Orlando Harrison, Berlin, Md., is president of the Peninsula Horticultural Society.

The Hawks Nursery Co., Rochester, N. Y., announces capital stock \$10,500, fully paid; assets, \$13,350; liabilities, \$1,000.

J. I. and A. W. Newson, proprietors of the Cumberland Nurseries, have made a voluntary assignment to the Nashville Trust Company.

The California naval lemon, possessing the characteristics of the naval orange, has been produced by Dr. Woodbridge, South Pasadena.

The firm of F. H. Hunt & Co., the junior partner being John V. Sprague, has been formed to deal in nursery stock at Hammondsport, N. Y.

The Western New York Nursery Co., Rochester, N. Y., announces capital stock \$15,000, of which \$12,000 has been issued; assets, \$12,000; liabilities, \$300.

P. S. Peterson & Co. have received the contract for the landscape embellishment of the middle parkway on Douglass boulevard, Chicago. Contract price \$10,850.

Hoopes Brother & Thomas will open an office in the Stephen Girard building, Philadelphia. Charles L. Cattell, for several years with the R. G. Chase Co., will be the manager.

H. C. Ward of Michigan has bought 15,000 apple trees, says the Fruitman. He plans to start one of the biggest orchards in the country on the pine stump lands of North Michigan.

A half interest in the Williamsburg, Iowa, Nursery has been sold to A. Baumhoefener, and the business will be continued under the firm name of H. Harrington & Co. They report that trade is good.

Silva & Berghtholdt Co. are agents, and Louis Ames is superintendent of the Lincoln Nurseries, successors to C. N. Silva & Son, Newcastle, Cal. They are getting straightened around after the fire in their plant, having rebuilt the buildings.

The Shady Hill Nursery Co., Boston, has entered a suit against John Waterer & Sons, Ltd., for the breach of an agreement to deliver rhododendrons, says the Boston Advertiser. In the lower court a verdict was ordered for Waterer & Sons and the Shady Hill Co. excepts.

Transcontinental railroads are said to be backing the general irrigation movement outlined at the recent irrigation congress in Chicago. They will unite in efforts to have the arid lands in Arizona, Nevada, New Mexico and other States west of Mississippi transformed into fertility.

M. J. Wragg, Wauke, Ia., president of the Iowa Horticultural Society, writes: "When I look at my desk piled up with fruit journals from every corner of the country, with many of them unopened, I often think what a waste of money in taking them; but I cannot afford to do business without your journal."

Abner Branson, New Sharon, Ia., established the West Branch Nursery in 1867. This he managed for fifteen years, when he removed to his present location and started another nursery. He is one of the original members of the Southeast Iowa Society, and has been for eight years a director of the State Society.

The liabilities of Alexander Pullen, Milford, Del., the well-known nurseryman, have been declared to be nearly \$12,000. Mr. Pullen made an assignment to his son, William Pullen, to whom he had given a bond for \$4,000, but his creditors have decided to push the case through bankruptcy. The assets will probably reach \$8,000, and include about \$2,000 of nursery stock, a farm and a large residence.—Philadelphia Times.

The Euclid Avenue Nursery Co., East Cleveland, Ohio, began business a year ago February 1st. Office and specimen grounds are located about three miles east of Cleveland on Euclid avenue, and nursery at Painesville, Ohio. C. W. Metcalf, the manager, has been engaged in landscape work for about 15 years and Henry Kohankie, the superintendent, has had 25 years experience with the Storrs & Harrison Co., Painesville. Special attention will be given to the growth of ornamental stock and contract work.

THE VENEERED SEEDLING.

Comment Regarding an Old Peach with a New Name—Who Has Not Seen and Eaten the Nameless Fence Corner Peach—The Temptation of Every Child—The Delight of the Frisky Pig—The Downfall of the Farmer and the Foe of Every Nurseryman.

For sixteen years we have run up against a peach that has baffled our efforts to introduce anything else in the way of a peach, says G. A. Gamble, Fort Smith, Ark., in the Arkansas Fruit Grower. For sixteen years we have tried to ignore this peach, but to no purpose. It doesn't pay to buck against a success. Some Tennessee tree dealers tried it by introducing their old budded varieties, but the people laughed them to scorn. So the dealers sold the people of Arkansas twenty thousand dollars worth of these seedlings at 50 cents to \$1.00 per tree. The people would have it, so what was the use to offer them anything else? This peach has come to stay. It has endeared itself to the heart of nearly every farmer in this section.

Well, this peach has never had a name. It is called a "seedlin'" but a very appropriate name would be, "The Veneered Seedling." The reason we think this an appropriate name is because the flesh of the peach reminds me of the veneering on a ten dollar sewing machine, being about one-sixteenth of an inch thick. No matter how full the crop or how dry the season you will always find the seed full size, and the peach has enough fuzz on it to keep it warm till Christmas if it would last that long.

You will find from five to fifteen of these trees in the back yard of every farm house. Occasionally on the farm of a prominent citizen who has risen to the distinction of "Esquire" (that means justice of the peace), or has in some way acquired the title of Colonel, Judge or Captain; or has succeeded in settling a half dozen sons-in-law around him, we have seen as many as seventy-five of these famous peach trees growing

You might not be attracted by the looks of this nasty, little, "onery," one-sided, shriveled-up peach, but it looks better than it tastes. It reminds me of the man's cow: He said a quart of her milk would make a half gallon of butter; we came near saying that from four bushels of these peaches you will get five bushels of seed, but we will modify it by saying that five bushels of the peaches will contain about four bushels of seed, which leaves one-half bushel of peeling and a half bushel of veneering. Remember the veneering is the part that you are expected to eat. You only have to peel and cut five bushels of these famous peaches in order to get a half bushel of veneering.

Another peculiar trait of this peach is that it will reproduce itself. You can plant the seed in the fall or winter and in the spring they will sprout and grow trees. These trees, in the course of two or three years, will bear fruit and it is sure to be peaches. Any farmer will assure you of this fact, whether you believe it or not. They may be white, yellow, red, freestone or cling, but the trees are sure to produce peaches.

Another feature about this peach is that when they begin ripening they last for two weeks.

They begin ripening about the 10th of August and continue till the 20th or 25th, if the season is favorable. This gives the women folks plenty of time to dry sufficient quantity to use

till the next crop comes in. A half bushel of dried peaches will last an ordinary sized family the other fifty weeks in the year. The people in the towns sometimes can peaches, but the people in the country don't care much for them, and as the cans cost 50 cents to 75 cents per dozen, they are considered too expensive.

You should see these trees if you are not familiar with them. They grow twenty feet high.

Of course you can't stand on the ground and reach a single peach, but if they are worth anything they are worth climbing for. Usually the trees bear such a full crop that all the limbs break off about six or seven feet high, but they outgrow it in two or three years and are in shape for another crop, if the season happens to be favorable.

Take it all in all the peach crop don't amount to much—with some farmers. They say "so much trash is not healthy." If the peach crop should last over two weeks the children would be sick. They are really glad when it is over. There is not much satisfaction in eating them and they have tried marketing them and that don't pay. Grocerymen say that this veneered peach will go further, that is last longer, than any other peach they can get. They only have to buy a bushel and put the price down to 25 or 30 cents and they will remain unsold for days. Oh, they are stayers; why, they say the very sight of them seems to be enough. Their customers stand and look at them a few moments and walk away with their appetites fully satisfied.

Of course they have read about how fruit raisers in other sections have made thousands of dollars by shipping carloads of budded peaches to the Northern markets, but the cunning farmer will tell you that it sounds too "fishy" for him. It looks nice on paper, but he has tried the markets at home and he don't want anything to do with those abroad. They will tell you that they "shook off" a load of peaches and took them to town and had to bring part of them back, and if our towns can't use a wagon load, how is Chicago to manage to consume a carload?

The average farmer is so well satisfied with what he has it appears like it would be a sin to disturb him in his present satisfied condition. Some people don't believe the scriptures which says "Man wants but little here below," but it's so. So mote it be.

The dutiable imports of plants, shrubs and vines amounted to \$100,749 in November, 1900, against \$95,883 in the same month of the year previous.

A bill to incorporate the Society of American Florists and Ornamental Horticulturists was introduced in the United States Senate by Mr. Proctor, on January 17th.

James A. Titus, Nemaha, Neb., died on January 12, aged 69 years. He was born in Rhode Island and had resided in Nebraska 45 years. He was a prominent Mason and was the senior member of the Titus Nursery Company.

A company organized for the purpose of insuring fruit trees, vines and plants against loss from hail and wind has been incorporated in Des Moines, Ia. The directors and incorporators are P. L. Fowler, W. S. Tedrick, W. S. Richards, A. M. Parker and W. F. Gormley of Des Moines.

There were exported during the season up to December 15th, from the United States and Canada to Liverpool, London, Glasgow and other points, 885,657 barrels of apples, as against 928,429 barrels in 1899-00. The falling off of 42,000 barrels is attributed to low prices in England.

Recent Publications.

Luther Burbank, Santa Rosa, Cal., has issued his 1901 supplement to "New Creations in Fruits and Flowers." Interested nurserymen should send for it.

An especially interesting catalogue is that of the Fancher Creek Nurseries, George C. Roeding, proprietor, Fresno, California. Within the 96 pages are listed the best things in ornamental and fruit stock, with all the particularly attractive fruits characteristic of the rich climate of the Pacific coast.

The spring seed guide of William Fell & Co., Hexham, England, has arrived. This royal seed and nursery establishment has been established upwards of a century. The catalogue is complete in every respect and should be on the desk of every nurseryman who has occasion to use seeds. It is handsomely printed and covered.

The Spring catalogue of the Storrs & Harrison Co., Painesville, O., for 1901, shows that this progressive firm is fully abreast with the times. The book contains 168 pages and lists everything that is desirable in fruit or ornamental stock. It is a reference book of value to all who are interested in horticulture. This company has had 50 years' experience.

Publications received: Flansburg & Pierson's catalogue, Leslie, Mich., Iowa Seed Co's. catalogue, Des Moines, Ia.; Pease Garden and Nursery catalogue, Des Moines, Ia.; Seed catalogue, Pinehurst, N. C., Nurseries, sixth report and bulletins of Montana Station; catalogue M. Crawford Co., Cuyahoga Falls, O.; proceedings Georgia Horticultural Society, 1900.

The catalogue of the Rosedale Nurseries, Brenham, Tex., established in 1860, is at hand. The proprietor, Stanley H. Watson, says: "This is the 42d year of the existence of these nurseries and we refer with pardonable pride to the fact that we numbered among our customers last season many who bought goods of us more than a third of a century ago."

Long and Short.

Evergreens at wholesale are a specialty with D. Hill, Dundee, Ill.

The John A. Salzer Seed Co., La Crosse, Wis., make special offers on seeds.

Josiah A. Roberts, Malvern, Pa., has a fine line of ornamental and fruit stock.

Hoopes Bro. & Thomas, West Chester, Pa., have a spring list in another column.

Fruit stocks of best quality at lowest rates are offered by Walter H. Harrison, LaMott, Pa.

Nurserymen's labels are made by the Dayton Fruit Tree Label Co., Dayton, O. Samples are sent.

A few thousand nice peach trees at low rates are offered by Downer & Briggs, Bowling Green, Ky.

The P. J. Berckmans Co., Augusta, Ga., have an interesting spring announcement in another column.

Climbing roses, Kaiserin and Wooton are specialties with the Howland Nursery Co., Los Angeles Cal.

Benjamin Chase, Derry, N. H., advises nurserymen to secure labels early to avoid delay at shipping season.

100,000 field-grown roses are offered by the Storrs & Harrison Co., Painesville, O. See their announcement.

Apple seedlings may be had of Richmond Commercial Nurseries, A. F. Moseley, proprietor, Richmond, Va.

Seeds of French pear, Keiffer pear and French crab are ready at Thomas Meehan & Sons, Germantown, Pa.

10,000,000 strawberry plants grown in Kansas; also other small fruit plants, at F. W. Dixon's, Holton, Kan.

The October Purple plum stock may be obtained of Stephen Hoyt's Sons, New Canaan, Conn. This plum has come to stay.

Evergreen and forest tree seedlings, ornamental trees and shrubs, wholesale and retail, are offered by R. Douglas' Sons, Waukegan, Ill.

A. E. Windsor, Havana, Ills., offers Osage Orange, Black and Honey Locust Seedlings and Hedge plants in all grades. Send him your wants.

Peach trees, apple, maple, Carolina poplar, Osage orange, arbor vitae, Irish juniper and Norway spruce, at George Achelis', West Chester, Pa.

The spring list of J. G. Harrison & Sons, Berlin, Md., appears in another column. They have a full assortment of fruit stock and a remarkably complete list of small fruits.

In surplus: Evergreen seedlings, grape vines, raspberry and black berry plants, forest tree seedlings, flowerings shrubs and apples for the north, at the Sherman Nursery Co's., Charles City, Ia.

TREE PLANTING IN CITIES.

Regarding systematic planting of trees in cities, Frederick W. Kelsey, New York city, says:

The planting and care of street trees is a subject of more than passing interest. Few appreciate the transformation in residential districts, both in urban and suburban communities, by the proper development of well-planted streets. The results in improved appearance, general attractiveness and comfort during the summer season are most favorable and out of all proportion to the comparatively small cost. This has been especially marked in Washington, Minneapolis and other cities, where a comprehensive system of street planting has been carried into practical effect. Paris and some of the other foreign cities also furnish striking examples of the beauty and benefit to be derived from municipal undertakings of this kind.

Under an act of the legislature, approved March 28, 1893, New Jersey has already the requisite legislation, enabling any city, township, borough or village to inaugurate a street tree planting system as a part of the municipal function.

TELLS MORE THAN ALL THE OTHERS.

JACOB W. MANNING, Reading, Mass., Jan 18, 1901—"Please find enclosed subscription for your valuable publication. It tells us more of the hopes and fears of the nurserymen of our country than anything else that comes to me in print. It shows us that all nurserymen have to work for a living. How you can furnish such a fund of information for \$1.00 I do not understand, unless you enjoy working at low wages."

HEARTILY IN FAVOR OF IT.

CHAS. J. MAXON GENERAL MANAGER CENTRAL MICHIGAN NURSERY CO., KALAMAZOO: "Enclosed find New York draft for \$1. We are heartily in favor of patronizing a paper devoted exclusively to the interests of nurserymen."

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT,

39 AND 41 CORTLANDT STREET, NEW YORK.

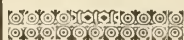
Sole Agent for United States and Canada.

DAYTON FRUIT TREE LABEL CO.

MANUFACTURERS OF

Nurserymen's and
Florists' Labels

DAYTON, O.



The superior standard of quality of our Labels are too well known to require special description.

Samples and prices upon application.



Evergreens

Large Stock Colorado Blue Spruce

Sweet Chestnut Seedlings

Very Large Stock Arbor Vitæ and Norway Spruce

Get my Price List and
Save Money

C. L. WHITNEY, Warren, O.

Again I offer to the trade a large and fine stock of Evergreens, from 3 inches to 3 feet. All in need of such stock will profit by getting my prices.

WE WANT

a thoroughly practical foreman to take charge of a nursery of 500 acres. Don't apply unless you know your business thoroughly, and are prepared to give references.

Nurseryman, care of The National Nurseryman, Rochester, N. Y.

Bobbink & Atkins, RUTHERFORD, N. J.

GROWERS AND IMPORTERS OF FINE

NURSERY STOCK

also Agents of Wholesale European Houses.

Hardy Rhododendrons

Hardy Azaleas

Clematis, large flowering and paniculata

Crimson Rambler, in bush and tree form

H. P. Roses, in dwarf and tree form

Rosa Rugosa, in bush and tree form

Japan Iris, Lilliums and Fern Balls

Herbaceous Plants

Tree Roses

Palms, Buxus and Bay Trees

CORRESPONDENCE SOLICITED

I am Offering a Fine lot of APPLE

leading sorts, including 2000 Baldwin; Standard PEAR, with a good proportion of Bartlett; Peach in extra heavy and first class, with a surplus of Early Crawford. In **SMALL FRUITS** I offer Concord Grapes I-I, Kansas, Gregg and Miller's Red Raspberry, Victoria and Black Naple Currants at less than usual wholesale rates.

An extra nice lot of Weir's Maple, 2 year, 8 to 10 feet.

W. B. COLE, - - - PAINESVILLE, OHIO.

Nursery Partner Wanted

An experienced office man to run agents, can place his experience against my capital; good habits, reputation and ability conditions.

Address NURSERYMAN, Kalamazoo, Mich.

Willowdale Nurseries

200,000 Peach Trees, Extra fine quality.

Keiffer Pears. All sizes.

Apples. First class, medium and one-half inch.

Large stock of Apricots, Gooseberries, Currants.

Norway Spruce, American Arborvitæ and other Evergreen Trees.

An immense stock of Maples, Lindens, Carolina Poplars and other shade trees.

200,000 Osage. Two year and one year. Extra fine.

California Privet. One year and two year.

Write for estimates
on your needs

Rakestraw & Pyle, Willowdale, Pa.

Here We Are with APPLE SEEDLINGS

All Grades Straight and Branched Roots.

200,000 IN BARGAIN LOTS. Also a general line of stock

ASK FOR sample and prices. AT ONCE.

A. C. Griesa & Bro., LAWRENCE KANSAS

For Sale

Controlling interest in a first class Nursery Co., doing a good and paying business, both local and shipping trade, well stocked and a good stock coming on. Location the best for living and growing stock. Long established.

Address, OWNER. care National Nurseryman

Complete
Line of

PEACH TREES

2000 Irish Juniper

100 Siberian Arbor Vitæ

50 Story's Arbor Vitæ

25 Retinspora Plumosa

Evergreens will be sold cheap to close out

C. L. LONGSDORF Floradale, Pa.

Osage Orange, Black and Honey Locust

FOR SEEDLINGS AND HEDGES—FOR SPRING 1901

My twenty-six years experience enables me to offer superior stock at right prices. SEND ME YOUR WANTS.

A. E. WINDSOR

HAVANA, ILL.

The Queen is dead! Long live the King!

but of more importance than King or Queen to our customers is the sending of their label orders at an early date, thus avoiding the annoyance of possible non-receipt in time to be of service.

BENJAMIN CHASE, DERRY, N. H.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

Copyright, 1901, by the National Nurseryman Publishing Co.

"North America is the great fruit growing country of the world."—BAILEY.

VOL. IX.

ROCHESTER, N. Y., MARCH, 1901.

No. 3.

TO COMPEL FUMIGATION.

New York Nurserymen Appear Before Legislative Committee and Vigorously Oppose a Bill—Only 6,000 Trees Affected by San Jose Scale in New York State, as Against 200,000 in 1898 and 1899—Proof of Control of the Pest—Large Interests at Stake.

Rochester nurserymen went to Albany on February 20th, and vigorously opposed, before a legislative committee, the passage of a bill to require the fumigation of nursery stock as a preventive of the spread of the San Jose scale. Irving Rouse said that, under the present law, nurserymen must destroy all infested stock without receiving any compensation therefor. The commissioner of agriculture now has the power to order fumigation when he considers it necessary. While the present law is not perfect, it has worked very well. The reports of the Department of Agriculture show but 6,000 trees affected in New York state, as against 200,000 in 1898 and 1899. This is regarded as strong evidence that the nuisance is under control. Mr. Rouse said that in most cases scale is found in small nurseries on Long Island, which could scarcely be called nurseries. He asserted that the commercial nurseries would never allow the San Jose scale to get a footing.

William L. Pitkin, secretary of the Eastern Nurserymen's Association, told the committee that the Eastern Nurserymen's Association comprises about fifty members, including some of the largest nursery firms in the country. Among the members are: Ellwanger & Barry, capital stock \$200,000; Smiths, Powell & Co., Syracuse, \$100,000; W. T. Smith & Co., Geneva, \$100,000; R. G. Chase & Co., Geneva, \$100,000; Brown Brothers Co., Rochester, \$150,000; T. S. Hubbard Co., Fredonia, \$25,000, besides a number of smaller firms and individual nurserymen. Mr. Pitkin read a memorial to the legislature from the legislative committee of the Eastern Nurserymen's Association, in the course of which he called attention to the fact that last winter the Western New York Horticultural Society favored a bill akin to the present one, while this year the organization is against it. Mr. Pitkin argued that the question of eradicating the San Jose scale should be left to the Federal legislature, where a bill to regulate the inspection of nursery stock in all the states is pending. He asserted that the agitation regarding the scale had prejudiced the Canadians to such an extent that a law had been enacted which forbids the importation of American nursery stock into the Dominion.

Charles J. Brown, of Brown Brothers Co., read extracts from agricultural papers condemning the proposed bill. He asked Assemblyman Phipps if he had asked the attorney general whether his bill would be constitutional if it provided for

fumigation of stock that had been inspected by the Department of Agriculture and given a clean bill of health.

Mr. Phipps replied that he had not as yet. Mr. Brown rejoined that it might be well to look into that matter else, if his bill passed and were declared unconstitutional, it might happen that the whole of the present inspection law would fall by the wayside, and the last state would be worse than the first.

C. M. Hooker, of Brighton, of the legislative committee of the Western New York Horticultural Society, told of the compromise effected between the fruit growers and the nurserymen at the recent meeting of the society in Rochester, and argued against the passage of the bill.

The nurserymen expect that, even if the bill is reported favorably by the committee, it will not be passed by the assembly.

NURSERY INTERESTS OF OHIO.

In an address before the Columbus Horticultural Society, James S. Hine said:

We may say there are two main nursery centers in Ohio—one at Painesville and one at Dayton; but these do not include all of the nurseries, by any means, for they are scattered about in all sections, and, with few exceptions, good healthy stock is being produced, the nurserymen using great care to keep their premises free from insects and plant diseases that may be distributed with their stock. I can say, speaking from this standpoint, that I am sure that there has been a vast improvement in the nursery business in the past few years.

The question of seedlings is one of interest. Outside of peach, practically none of the seedlings of fruit trees are produced in Ohio. They are either imported from Europe or obtained from growers in our Western states. Between domestic and foreign grown seedlings there appears to be a difference, and all nurserymen, when interrogated on the subject, do not hesitate to express a preference for one kind or the other. I was much interested when it was possible to see growing in this state a plantation of about three acres of apple seedlings. They looked well, and from appearances then would produce desirable stock by the end of the growing season.

The wider the acquaintance one gets with orchards and nurseries, the more apparent it becomes that soil, in order to grow fruit trees, must be well drained, either naturally or artificially. I am sure that a great many young orchards are assisted on the road to extermination by improper drainage of the soil on which they are planted. Closely associated with improper drainage is what is known under the name winter-kill. A great deal of this is present in some sections. The tree may be alive and have apparently heavy foliage, but the bark is peculiar, the growth is stunted, and the trunk, if bent, will snap off like a pipestem, as we say; the heart-wood being black, or, in extreme cases, entirely rotten. Trees affected by winter-kill may find their way into the market, but they are almost sure to die in a short time after they are set in the orchard.

The number of ornamental shade trees that Ohio nurserymen are producing is striking. The Carolina poplar, although it is not the most desirable tree in the estimation of landscape gardeners, leads in the numbers produced.

THE BUTLER & JEWELL CO., CROMWELL, CONN., Feb. 8, 1901.—
"Enclosed find \$1. Don't drop us off your list while we are on earth."

SOUTHWESTERN ASSOCIATION.

The second annual meeting of the Southwestern Nurserymen's Association was held in Oklahoma City, January 29-30. The meeting was well attended and subjects of practical interest were discussed. It was stated at this meeting that Oklahoma is growing as much nursery stock as any other area of the same size west of the big river. There are thirty-three growers of nursery stock in Oklahoma and all are intending to plant heavily this spring. A new firm is starting this spring by the planting of 15 acres in a general line at Union, Oklahoma. The proprietors are F. F. Ferguson & Sons and the place is to be known as the Southwestern Nursery.

Perry's Nursery Co. is erecting and will have in use by planting time another large pump and engine for irrigating purposes. This time the water is to come from the North Canadian river and in such quantities as to be used from the pump direct. This company has an extensive irrigating plant on the upland where they use wind power and pump into reservoirs. A. A. Johnson and A. S. Perry are the proprietors.

The Southwestern Nurserymen's Association elected the following officers: President, J. A. Taylor, Wynnewood, Indian Territory; vice-president, J. W. Preston, Kingfisher, Oklahoma Territory; secretary and treasurer, C. A. McNabb, Oklahoma City, Oklahoma Territory.

ACTIVITY AT AUGUSTA, GA.

The close of the old year found P. J. Berckmans Co. shipping a consignment of trees and plants to South Africa. It was an unusually large order, taking thirty men ten days to execute it. This was a fitting wind-up to a most prosperous fall business. Roses and the handsome *Biota aurea nana* head the list for record sales. More than 20,000 of this pretty conifer were shipped from these nurseries the past season, and, as evidence of its popularity, more orders are on file than it is possible to fill just now. Some 75,000, in various stages of growth, are coming along, so there is no danger of the stock becoming extinct for awhile.

A new *biota* (*B. japonica filiformis*) will become very popular. It has a spiral and spreading habit, of a filmy nature, most graceful. In new *ligustrums*, I noted *L. marginata aurea macrophylla*, and *excelsum superbum*, all very fine, the last named particularly so—large foliage, well and evenly marked. It is doubtful if these plants are hardy north of Washington, although *L. amorensis*, which was considered a half-hardy plant, is doing well as far north as Newport, R. I. *Citrus trifoliata* is increasing in favor as a hedge plant; it is proof against the attacks of any animal; one introduction suffices. As I gazed at a noble specimen of the green holly which was literally smothered in scarlet berries, I pictured it in some of our New York stores. What a furore it would create! This grand old tree has stood in the same spot for forty-five years, and is the pride of its foster parent, P. J. Berckmans, Sr.

The new century was ushered in with consignments to Cuba and Porto Rico, also a big shipment to Bombay, India. Among the varied assortment was every kind of nut tree, largely pecans. Home trade is not overlooked in the rush. At time of my visit, Robert Berckmans was leaving for Charleston, S. C., to see about planting 165 acres which will form the exposition grounds. The stoneless peach is in big

demand. At the fruit farm, situated a few miles southwest, close upon 40,000 trees of this kind are planted out. Before closing these notes, I must not forget to mention the climbing Soupert rose, which is a fine thing. The flower is similar to the old variety, but the plant blooms freer and in clusters, the habit being very rampant. That pretty *bouvardia*-like plant, *Pentstemon lanceolata*, stands the hot sun here, and blooms freely throughout the entire summer. *Swainsona galegifolia* has proven hardy here during the past winter.—Florists' Exchange.

COMMENT ON W. N. Y. MEETING.

COUNTRY GENTLEMEN—"The official inspection of nursery stock seems to have become a settled affair in our fruit-growing industries. Nearly all the states have provided for such inspections, and Canadian legislation has been peculiarly drastic. The odd thing about it, apparently, is that the nurserymen are, as a class, strongly in favor of these inspection laws—quite as much so as the fruit-planters. The Country Gentlemen has insisted from the beginning, however, the interests of the nurserymen and tree-planters were one; and it is a special gratification to us therefore, to find the result so soon justifying our contention."

RURAL NEW YORKER—"The people are modifying their views regarding the scale and fumigation, and this is no time for the nurserymen to adopt such methods in order to keep fruit growers quiet. The society finally agreed to ask for an appropriation of \$25,000 with which the Commissioner of Agriculture will enforce the present law. Let this law be honestly enforced, and if it does not answer let us have one that will do the work. The nurserymen must not get the idea that they are the only ones to be considered in this matter. The fruit growers have far more at stake, and any effort to stifle their views at public meetings should be sternly condemned."

AMERICAN AGRICULTURIST—"The animated discussion by the Western New York Horticultural society last week should not cause a division in the organization. The society is the most powerful and influential body of horticulturists in this country, if not in the world. The San Jose scale question which seemed to divide the organization can be amicably adjusted. The society will lose much of its prestige as a factor in American horticulture should a division occur and some plan should be perfected for a fair and lasting settlement of the differences between nurserymen and fruit growers. The San Jose scale question is without doubt one of the most important subjects confronting American horticulture to-day. Fumigation of nursery stock to control the scale is a simple and inexpensive operation. Once this fact is understood, nurserymen who now regard disinfection as a great hardship will be among the first to favor it. This has already been the experience in other sections. Certain progressive nurserymen are installing outfits for the purpose."

AMERICAN GARDENING—"It is regrettable to notice that another scare regarding San Jose scale is being energetically worked up by excited fruit growers and politicians in New York state. The indications are that a number of gentlemen, otherwise considered sane, have gone clean crazy on the subject of legislation touching the eradication of this scale. To calm outsiders it would look as though a number of enthusiasts stay up of nights thinking about Albany and the almost almighty power of the legislative body that meets in that city.

"All the legislation in the world will not eradicate the San Jose scale; and there is not the slightest doubt that the evil will right itself providing the workers take the necessary precautions and assist in the eradication. And this can be done without legislation.

"Compulsory fumigation in the State of New York means a great deal. It means the tying up of a huge amount of capital and the ruin of a large industry; furthermore if the agitation be continued and these gentlemen only cry out loud enough and long enough, their voices will also be heard in the foreign markets of which they talk so much and so glibly and which they cannot for one minute do without. We say their voices will be heard in these markets and the echo will bring back the refrain, 'You are pest ridden; we must legislate to keep your vile fruit out of our country.'"

In Common Council.

Editor NATIONAL NURSERYMAN :

Your excellent paper visits us once regularly a month and we are glad to see it come. Business has been fair and the spring demand for trees increasing. More attention is being paid to orchards than usual. The winter has been very mild so far, but the grip has caught the most of our people.

A new Rambler rose originated in our grounds year before last (1899). It is a sprout of the Polyantha rose Mignonette and only those who know and appreciate that unique and beautiful little pink rose can appreciate this, with its immense clusters of perfect little pink flowers. This is certainly destined to be a favorite when known.

With best wishes for the success of *our* paper in the new century.

Plain Dealing, La.

L. T. SANDERS.

APPROVES ITS POLICY.

Editor NATIONAL NURSERYMAN :

Enclosed find \$1. Can't do without the NURSERYMAN. Glad to see your caution about captious legislation affecting our fruit interests. At the bottom of most all these strenuous laws may be found some very small interests.

Referring to the discovery of the "Praying Mantis," as noted in your January number, page 145, I beg to say this insect has been very common in Texas for more than forty centuries, and this may be the cause of our immunity from San Jose scale and all the other destructive insects so common in many states. It is more probable that this great discovery is like many other fearful things which we read about, and which result from disordered stomachs or exploded exchequers.

I beg to remark that Texas is all right financially and every other way. Full blossom to the NURSERYMAN.

McKinney, Texas.

E. W. KIRKPATRICK.

[The common species of mantis, confined to the Southern states, referred to by Mr. Kirkpatrick, is *Phasmomantis carolina*. The specimens found in Rochester were genuine *Mantis religiosa*, common only in Europe, Africa and the East.—Editor.]

PROPAGATION OF PLUMS.

Editor NATIONAL NURSERYMAN :

Prof. F. A. Waugh's experiments in propagating several varieties of plums on different stalks, as given in the November and December numbers of the NATIONAL NURSERYMAN, are interesting, but to my mind, these experiments would have been much more important and useful, and, no doubt, would have given quite different results, especially in the case of the peach as a stock for the different sorts of plums used in the experiment, had they all been budded on seedling stocks, instead of whip-grafted on pieces of roots four or five inches long, as stated. We should have expected the grafts, set on pieces of peach roots, to make the poorest showing. Besides, budding is the usual way of propagating plums in most nurseries; therefore, it would have been better to work them in that way. No doubt, all strong-growing varieties of plums would be best grown on their own roots. By grafting such varieties, using long scions on pieces of roots, and planting deeply, when once established, they ought to make the best trees; but it would take at least a year longer to produce a

tree of the usual marketable size in that way, as compared to budding on strong stocks.

We prefer the peach as a stock for Japanese plums to any other that is now available in sufficient quantities. Our best trees in the orchard are those on peach stocks, while those on Marianna stocks are not doing well, many of them dead or dying. We are using also Wild Goose and Reed (Wayland group) for stocks for the Japanese and the hybrids, such as America and Gonzales, and find that they all do exceedingly well, they have made a strong, even growth on good soil, and, with a favorable season, they make trees plenty large enough for sale in one year from the bud.

The Wild Goose, not being self-fertile, the seedlings are nearly all crosses with Miner, Reed, or Golden Beauty, as trees of these sorts are growing near them. Without good pollinating sorts near them, there would be but few plums to gather from the Wild Goose trees. Another stock we have found to be very good for the Japanese plums, is the seedling of DeCaradenc. The only objection so far noticed is that it is too uneven in growth; in fact, quite a large percentage of the seedlings are entirely worthless, being extremely dwarf in habit, while those that are strong are just the reverse, being extra vigorous, and there are but few of medium growth. Curious points worth noting are that those very dwarf seedlings are all so uniform in appearance and manner of growth, being of a low, spreading growth; all have very brittle wood and very thick bark. If Prof. Waugh or any of our scientists could tell us the cause of this great variation and these curious dwarfs, we should be pleased to hear from them, or to have them call on us and examine them. Before the advent of the Japanese plums in our orchards, the DeCaradenc trees bloomed profusely every year, but produced little or no fruit, the blossoms not being self-fertile. Since the Japs, which bloom at the same time, have come into bearing near them, they have borne profusely, but the plums are all ruined by the cherry maggot. These seedlings are doubtless nearly all hybrids with the Japanese plums. A few, however, show unmistakable signs of having been hybridized with the apricot. These have not been budded. They would be what Mr. Burbank calls "plumcots" of some sort, no doubt.

Another very curious thing about a few of these seedlings is their very close, upright habit and very persistent leaves. From the window we can now see three small trees, still in full leaf, appearing like young evergreens in the distance, while all the other stocks and nursery trees shed their leaves long ago.

Having noticed that Northern Spy trees are often recommended as stocks for top-working other sorts on, we concluded to try seedlings of the Northern Spy for that purpose. We see no reason why these seedlings would not retain enough of the characteristics of the Northern Spy to be equally as good as the Northern Spy trees worked on mixed seedlings. They certainly would cost less, and perhaps would prove fully as good, or better. For the purpose of testing them we collected some seeds from Northern Spy apples, which usually have plenty of good plump seeds, used for drying and in our family last fall and winter. These seeds were sown last spring and we now have several thousand pure Northern Spy seedlings. We, however, cannot use one-half of them for our own planting. If any nurseryman or experiment station would like to try them in small quantities we would be pleased to hear from them.

LEVI BELL.

Sparkill, N. Y., Dec. 18, 1900.

NEW YORK NURSERY STOCK.

An Estimate of Varieties as Prepared by Inspectors of Nurseries During 1900—Nearly 400 Nurseries, Covering 6,000 Acres—25,665,311 Fruit Trees—Out of Thirty Million Trees Examined, Only Six Thousand Were Found Diseased—The Figures.

The inspectors of nurseries in New York state, while engaged in their work in 1900 gathered an estimate of the quantity of different kinds of nursery stock, and the following is a summary:

Number of nurseries to which certificates were granted...	399
Acres in same.....	6,005
Acres in vineyards from which cuttings are taken for propagation.....	896
Estimated number of apple trees.....	8,830,817
Estimated number of pear trees.....	4,755,133
Estimated number of plum trees.....	5,495,122
Estimated number of cherry trees.....	3,955,892
Estimated number of peach trees.....	2,823,363
Estimated number of quince trees.....	718,565
Estimated number of apricot trees.....	77,616
Total number fruit trees.....	25,655,311
Estimated number of ornamental trees.....	3,521,606
Estimated number of shrubs.....	4,815,868
Estimated number of currants.....	4,263,224
Estimated number of gooseberries.....	80,188
Estimated number of grape vines.....	11,795,139
Number of acres in raspberries, 233½; blackberries, 80½; strawberries, 133½.	
Number of diseased trees, 6,671; cause, San Jose scale; all burned.	

In addition to the above work, some attention was given to orchards and vineyards as follows:

Number of orchards examined, 153; vineyards, 76; acres in orchards, 3,065½; acres in vineyards, 1,663; orchards in which San Jose scale was found, 46.

Total number of apple trees, 42,637; pear, 63,062; dwarf pear, 3,030; plum, 21,068; peach, 260,875; cherry, 17,590; apricot, 284; quince, 725; currants, 872,720; about two-thirds of all these in bearing.

Acres in strawberries, 143; raspberries, 66½; blackberries, 22; gooseberries, 4½.

STATE HORTICULTURAL SOCIETIES.

WEST VIRGINIA STATE.—At Charleston January 29.—A bill for inspection of orchards and nurseries was favored. Officers: President, R. C. Burkhart; vice-president, O. V. Oshel; secretary, Prof. L. C. Corbett, Morgantown.

IDAHO STATE.—Sixth annual meeting at Boise, January 21-23. Large crop of apples, prunes, and pears is promised. Forest preservation and insect pests were discussed. Officers elected: President, J. B. Perrine; vice-president, F. A. Huntley; secretary, Robert Milliken, Nampa; treasurer, R. M. Gwinn.

ARKANSAS STATE.—Twenty-first meeting at Little Rock, Jan. 30-31. It is proposed to secure legislative action regarding infectious diseases. Officers: President, John P. Logan, Siloam Springs; vice-presidents, S. H. Nowlin, R. V. Gray, A. W. Poole; secretary, W. K. Tipton, Little Rock; treasurer, Jos. W. Vestal; chairman executive committee, E. M. Phillips.

NEW HAMPSHIRE STATE.—At Concord, Jan. 16. An annual appropriation of \$500 was asked to promote horticultural interests of the state. Officers elected: President, C. C. Shaw, Milford; vice president, J. W. Farr, Littleton; secretary, W. D. Baker, Rumney; treasurer, T. N. Hunt, Lakeport; executive committee, E. M. Shaw, G. A. Wason, J. T. Harvey.

EASTERN NEW YORK.—Fifth annual, in New York February 13-14. Attendance, 50. The bill to require fumigation of nursery stock was endorsed. Seedlings of Newton Pippin crossed with Northern Spy, Greening and English Russet, attracted much attention. Officers elected: President, George T. Powell; vice-president, Walter F. Taber; secretary, Charles H. Royce, Rhinecliff.

NOVA SCOTIA FRUIT GROWERS.—Thirty-seventh annual meeting at Wolfville, January 28-30. Two hundred plates of apples were shown including Baldwin, Gravenstein, King, Ripston, Pippin, Blenheim Pippin, Fallawater, Golden Russett, Banks, Red Gravenstein, Rhode Island Greening, Spy, Nonpareil, Ben Davis, Stark, Wagner. Officers elected: President, J. W. Bigelow, Wolfville; secretary, S. C. Parker, Berwick.

SOUTH DAKOTA STATE.—Twelfth annual meeting at Sioux Falls, Jan. 22-24. New officers; President, H. M. Avery, Sioux Falls; vice-president, A. Norby, Madison; secretary, N. E. Hansen, Brookings; treasurer, M. J. Dewolf, Letcher; librarian, E. D. Cowles, Vermillion; vice-presidents for districts, Ernest Lacy, N. E. Carmine, Mrs. Alda M. Miller, G. A. Tracey, John Armstrong, G. Skartvedt, C. W. Gurney, A. D. Dougan, P. J. Bentz, John H. Miller, C. E. Kittinger, George M. Trimmer.

NORTHWEST FRUIT GROWERS.—At Portland, Ore., February 5-6. Attendance, 200. E. L. Smith of Hood River reported the commercial apple orchards of Oregon as comprising 16,500 acres and valued at \$1,650,000. If these trees had been better located, planted further apart, and had been in fewer varieties the orchards would be worth \$825,000 more, said Mr. Smith. Prof. Milliken of Idaho said the fruit crop of his state last year was the heaviest ever produced there, and much fruit went to waste for lack of facilities to get to market. Officers elected: President, Dr. N. G. Blalock; secretary, C. F. Vandewater; treasurer, W. S. Offner, Walla Walla, Wash.

CONNECTICUT POMOLOGICAL.—Tenth annual, in Hartford, February 6-7. Membership, 339. A resolution favoring San Jose scale legislation was adopted. Officers elected: Norman S. Platt, of New Haven, president; J. C. Eddy, vice-president; H. C. C. Miles, of Milford, secretary; R. A. Moore, treasurer. It was reported that the San Jose scale is present in nearly every township in the state, and unless prompt measures are taken to combat it great damage will result. The legislature has shown no disposition to help fruit growers in the past, so the society thought it hardly advisable to introduce a bill asking for help. The society has sounded a note of warning, and it is to be hoped that the legislature will see the danger and enact suitable laws.

PENNSYLVANIA STATE.—Forty-second annual meeting at Harrisburg, Jan. 21-22. The necessity of additional legislation for the protection of the fruit interests was discussed by Secretary of Agriculture John Hamilton. A special committee brought in a report which will be presented to the legislature for action. The bill provides for the creation of an office under the general supervision of the department of agriculture and provides for the appointment of a state entomologist and pathologist with an assistant. By special request Professor W. G. Johnson, formerly of Maryland, now associate editor of American Agriculturist, was asked his experiences, after having successfully operated a law of a similar character in Maryland. He said that by all means a law of this character to be successful to the greatest possible extent should be entirely free from political influences and the work prosecuted on a non-political basis. Resolutions were passed asking for legislative appropriation of \$147,000 to erect and equip a building at the state college for instruction in horticulture and dairying; for prevention of fruit-tree diseases and pests; for establishment of division of horticulture and pomology in the State Department of Agriculture; for appointment of a commission of horticulture and pomology, at \$2500 per annum, with clerk at \$1500. Officers elected: President, Howard A. Chase, Philadelphia; vice-presidents, Calvin Cooper, W. T. Creasy, M. C. Dunleavy; secretaries, Enos B. Engle, Waynesboro, and W. P. Brinton, Christiana; treasurer, Samuel C. Moon; chairman general fruit committee, N. C. Snively, Lebanon.

GEORGE C. ROEDING, Fresno, Cal., Jan. 14 1901:—"Enclosed you will please find money order for \$1 00 in payment of subscription to the NATIONAL NURSERYMAN. We consider this one of the most valuable papers for nurserymen in the United States, and you should be encouraged in your good work."

IMPROVING TREES.

Suggestions by President Pendergast, of the Minnesota Horticultural Society—Definite Course Necessary Along Lines of Selection and Crossing—Wisconsin Society Adopts Resolution for Co-operation with Committees in Iowa the Dakotas and Minnesota.

At the recent annual meeting of the Wisconsin Horticultural Society, President W. W. Pendergast, of the Minnesota Horticultural Society, discussing improvement of trees and plants said:

What has been done, can be done again. If the wild crab can be metamorphosed into a Wealthy apple, the best apple of the Northwest to-day can be further changed to meet the conditions more fully and to adapt itself more completely to its environment, at the same time improving its flavor and keeping quality. To do this best in the least time, the course to be pursued must be planned with care and judgment. It might be well to select at first say eight of the best varieties which are now grown, each one of which excels decidedly in some one quality. Let one be an iron clad, one very highly flavored, one a beauty to look at, one a long keeper, one a good grower, one a great bearer, one fine grained, juicy and free from mealiness, while the last might represent a spreading habit, long life and all that is desirable in the tree itself. All the chosen varieties should possess as many good qualities as possible, but be particularly excellent in the one named. When the selection is made by a well-chosen committee appointed for the purpose, let the experiment stations, amateurs and practical horticulturists and all others who wish to take part begin by crossing each kind with each of the others. This will give 28 combinations, the fruits of each having a different pedigree. As soon as these bloom, let the propagator cross two varieties of the 28, then two more till he gets to the last. This would reduce the number from which the selection would be made to 14. A repetition of this operation would give but 7 to propagate from. Continuing along the same line the next time, we should have three crosses and one old tree to cross with best one already found. Before reaching this point, which would require 40 years or thereabout, we should obtain some very good apples, and if long keeping has been made a specialty in all selections, there will doubtless be a few good winter apples. Yet it must not be forgotten that we are building for posterity and enjoying the work.

The following resolution was adopted:

Resolved—That the executive committee of this society be authorized and instructed to co-operate with similar committees in Iowa, North and South Dakota and Minnesota in devising some systematic plan for the improvement of our fruits.

PRESENT DAY TENDENCIES.

"The first and most important tendency to-day is education," said Professor L. H. Bailey, of Cornell University, at the annual meeting of the New Jersey Board of Agriculture, speaking on the subject of present-day tendencies in horticulture. We are facing new conditions. Fruit products of

all kinds compete now with every other kind of farm crop. Our orchards must be tilled better than our grand-father tilled them, as a good orchard of their time would not now have a place on a well-kept and profitable horticultural farm. The market end of the business is the most important part of all. We must more and more put our fruits in small packages and pack honestly—guarantee them to be alike all through the package. Spraying has come to stay. It is no longer a matter of discussion, and the man who fails to recognize this is not up on fruit productions. As to varieties, adhere to standard sorts and let novelties alone, or try them on a limited scale until fully established."

IN MEMORIAM—GEORGE GOULD.

George Gould of Villa Ridge Nurseries, Villa Ridge, Ill., after an illness of four months died at his home in Villa Ridge,

February 12th, at the age of 64 years. The cause of his death was chronic liver trouble, caused by malaria. Mr. Gould was a pioneer in the fruit and nursery business in Southern Illinois. He began grafting trees as early as 1870 and kept at the business all the time from then on. In the beginning his nursery was only a little local affair, growing trees for the neighbors. It steadily increased until it reached its present proportions.

In 1896 the Villa Ridge Nurseries propagated and introduced the Koonce pear which has proven to be one of the best marketable early pears and is widely planted now.

The death of Mr. Gould will cause no change in the Villa Ridge Nurseries. H. L. McGee, who has been the active member of the firm for the last three years, will continue at the head of it as before.

TREE PLANTING IN WASHINGTON.

Reports received by State Horticulturist Baker of the State of Washington indicate that not less than 1,000,000 fruit trees will be set out by the farmers and fruit growers of Washington this season. This is by far the greatest record the state has ever made, last year's plantings amounting to 750,000 trees. At least half of the fruit trees set out this year will be apple trees. Eastern Washington will put out about two-thirds of the total number. The others will comprise prune, pear, peach, apricot and cherry trees. All of the nurseries along the Columbia river, in both Washington and Oregon, are sold out and farmers are unable to secure more trees in that locality.

The effort to give the culture of the choice European table grape a thorough test in the South Atlantic States has been continued at Southern Pines, N. C., and Earleton, Fla. Vines of such varieties of the first importation (that of 1899) as failed to grow have been replaced so far as possible, and as many additional sorts of supposed merit as were obtainable on resistant stocks have been secured.



GEORGE GOULD.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSEYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

President, Theodore J. Smith, Geneva, N. Y.; vice-president, N. W. Hale, Knoxville, Tenn.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Irvine Rouse, Rochester, N. Y.; C. L. Watrous, Des Moines, Ia.; E. Albertson, Bridgeport, Ind.

Committee on Transportation—Theodore J. Smith, ex-officio, chairman; A. L. Brooke, N. Topeka, Kan.; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Phoneton, O.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y. Robert C. Berckmans, Augusta, Ga.

Committee on Tariff—Irvine Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., MARCH, 1901.

DEMAND AND PRODUCTION.

The outlook for the nurseryman is certainly bright. Never before has there been a greater general interest in the subject of fruit growing. Individual farmers are buying trees in large quantities and there is rapid advance in the line of commercial orchards. There seems to be no danger of over-production. That bugaboo has been downed. It was said that the last apple crop would be so large as to force prices to so low an ebb as to remove all hope of profit. But those who held their stocks of apples realized good prices, as usual. The extension of facilities for marketing fruit has more than any other one thing increased the number of growers of fruit. Electric lines are reaching into the heart of fruit-producing sections and are transporting large quantities of fruit where heretofore the amount was measured by a few wagon loads.

In an address before the Massachusetts Horticultural Society a year ago, S. D. Willard, Geneva, N. Y., one of the best known

fruit growers in the country, discussing conditions which are only emphasized after the lapse of a twelve-month, said:

"The prices of apples have been steadily advancing until for several winters they have been held so high as to be beyond the reach of the masses, and good number one apples are really a luxury to-day. They are shipped to all parts of the world as green fruit, canned and evaporated, while the skins and cores are converted into wines and jelly, so that nothing is lost or wasted. A few years ago our surplus of this fruit was marketed in the British Isles, while to-day the German States and Russia are calling loudly for them, with the probability that our newly acquired possessions, both in the Atlantic and Pacific, will soon be numbered among the consumers of this king of all fruits. From twelve to fifteen thousand barrels of the last year's crop found their way into Russia. Seven counties in Western New York are said to have received from their apple crop not far from \$5,000,000 the past season, while at the same time receiving hundreds of thousands of dollars for their pears, plums, peaches, quinces, cherries, apricots and small fruits. Is not the outlook full of encouragement to the orchard man as well as to the land owner who may have found his work unsatisfactory in fighting competition, which will never be less, from regions unfitted by soil or climatic conditions for growing fruits that can be produced no where else as well as in New York or New England? I beg your serious consideration to this subject as deserving more thought and careful study than has usually been given it. There should be an increase of area for the production of this fruit on the cheap lands now so abundant throughout this region, accompanied by greater intelligence as to varieties especially adapted to commercial work, and more thorough culture with the purpose of growing only that of the most excellent quality.

"Where is the man living who thirty years ago would have dared to predict that before the close of the century single towns in the State of New York would have produced and found profitable markets for cherries by the hundred tons, plums, peaches, pears, and quinces in much greater quantities, apricots by hundreds of bushels, and small fruits to correspond? Yet such is the fact, and the demand is yet in advance of the supply. Is not the outlook full of encouragement to the professional fruit grower who is receiving from \$150 to \$300 per acre net for his crops?"

TENNESSEE INSPECTION BILL.

N. W. Hale, Knoxville, heading a committee of the East Tennessee Nurserymen's Association has prepared a bill to be introduced in the state legislature, creating the office of state entomologist and to prevent the introduction or dissemination of noxious insects, or infectious or contagious diseases of trees, vines, shrubs or plants grown in the state or imported from other states or countries. The bill provides that the entomologist is to be selected by the trustees of the University of Tennessee, and to work in connection with the agricultural experiment station. He shall inspect all nurseries whenever he deems it necessary and shall publish the results of his inspection. It prohibits the shipping of nursery stock into the state that does not bear a state or government inspector's label. A violation of any of the provisions of the bill imposes a fine of from \$5 to \$25.

Mr. Hale, referring to this bill and to the shipment of a carload of infested stock from a Nashville nursery into the state of Georgia where it was seized and burned, says: "A state now without a law upon this subject, and a good and well-equipped entomologist, is in bad plight. Such states not only suffer from nurserymen being unable to do business in other states as they prefer to do, but also the state becomes the dumping ground for any and all nurseries and nursery stock from other states and territories. I certainly hope that every state will soon have a strong law upon this subject. It is now beyond question a necessity."

TREE PLANTING IN GEORGIA.

State Entomologist Scott of Georgia is quoted as stating that two millions of fruit trees will have been planted out in orchard, in that state, by March 1. According to the gentleman, nearly every nursery in that section has sold out of trees, and it is impossible to secure any of the standard varieties. He announced early in the fall that he thought one million trees would be planted, but since that time so many orders have been placed for young trees, and the growers have planted so many, he has raised his estimate to two millions. The greatest amount of planting was done in North Georgia.

NEW YORK COMPROMISE BILL.

The provisions in regard to the fumigation of nursery stock, of the so-called compromise bill, favored by C. M. Hooker, Rochester, and agreed upon by the Eastern Nurserymen's legislative committee and the legislative committee of the Western New York Horticultural Society, and which both committees are to support at Albany next winter, provided more nurseries are found infested with San Jose scale this year than were last, are as follows:

All trees, shrubs, plants, buds or cuttings commonly called nursery stock grown in any nursery in this state and in which nursery San Jose scale has been found within two years of the date of the dissemination of said nursery stock and grown within one half mile of where said scales are found, and also all nursery stock from outside of this state disseminated or planted in this state or forwarded in or out of it after the first day of July next, must be fumigated with hydrocyanic acid gas in such manner as may be prescribed by said commissioner. Such fumigation shall be done by the grower, consignee or consignor of such stock before dissemination or reshipment, except such trees, shrubs, plants, buds or cuttings, grown in this state, as are planted by the propagator for himself, or such as from its nature and state of growth would be exempt. In such cases the said commissioner shall declare said trees, shrubs, plants, buds or cuttings free from such treatment. All such nursery stock forwarded by any transportation company must be accompanied with a certificate from the consignor that it has been fumigated as aforesaid, or by a permit from the commissioner of agriculture that the same may be forwarded. Should any such stock from out of the state be received in this state not accompanied with a certificate that it has been fumigated with hydrocyanic gas, it must be so treated by the consignee or consignor before planting, dissemination or re-shipment.

Section 2. The provisions of this act shall not apply to florists' green-house plants, flowers and cuttings commonly known as green-house stock.

Section 3. This act, except so far as it relates to fumigation, shall take effect immediately.

GEO. PATTINGTON & SONS, SCIOVILLE, N. Y., Feb. 9, 1901.—"Enclosed please find \$1 for our subscription to the NATIONAL NURSERYMAN. Kindly acknowledge receipt and oblige. We certainly do not wish to be without the NATIONAL NURSERYMAN, as we think it the best paper of its kind we take."

Recent Publications.

The 1901 edition of the American Florist Company's directory of florists, nurserymen, and seedsmen of the United States and Canada has appeared. It contains thousands of changes as compared with the issue of 1900. Many names have been added and many have been removed. There is an increase in the size of the book, due largely to the important lists of head gardeners, superintendents of private estates, horticulturists of experiment stations, etc. It is a valuable reference book for the florist, seedsman, and nurseryman. \$2 00. Chicago: AMERICAN FLORIST CO.

"The publication of a book on the garden calls for no apology—there are not half enough contemporary works on the subject; there never can be too many." Thus wrote George H. Ellwanger, of Rochester, N. Y., in 1889, in the preface of his charming work "The Garden's Story." And we are reminded of the truth of the statement as we open the large and handsomely equipped volume, "Gardens, Old and New," published in London and imported by Charles Scribner's Sons, New York. No one who has visited England or who has turned the pages of the illustrated journals treating of the grand estates of Great Britain, can have failed to note the great amount of time and money which have been bestowed upon landscape effects in that country. Indeed, the old English estate is a synonym for the best that can be produced in the way of gardening.

In the copyrighted engravings from "Country Life" with which the work above referred to is embellished, are shown striking examples of the old and new gardens which on so extensive a scale surround the palaces and mansions of English royalty and aristocracy. In the introduction to this elaborate volume of 300 pages, the old and the new schools of gardening are skillfully and graphically contrasted. It is shown that from any point of view true art in gardening presupposes that the house and the garden are one.

"The world of gardening," says the author, "is wide enough for all alike, for those who love the mossy terrace shadowed by beech or lime, the fantastic yew cut by the topiary hand, or the still canal where the birds 'float double, swan and shadow;' or again for those who delight in gentle meads, undulating slopes, and waters winding by the wood. We may discover, amid the warning words of the advocates of one style of gardening or another, that it is, after all, no worse to trim a tree than a lawn—that the difference is in degree not in kind, that all gardening, is, in a measure, formal and that it was only the extravagance of the old topiary gardeners that brought them into contempt."

The old Englishman dearly loved an enclosed garden bounded by tall hedges of beech or yew, well cut and trimmed. Pope laughed at the fantastic things that awoke his ridicule and Taine complained that all was artificial. Stately iron gates hammered into elaborate designs filled the spaces where the high hedges or thick walls did not meet. All was enclosed, formal.

Garden work in the new manner was given impetus through the celebrated gardens created by André le Nôtre at Versailles, Chantilly, St. Cloud and Mendon and the terrace at Fontainebleau. Hampton Court is the most splendid example of the school of Le Nôtre. But this style of gardening was expensive and suited only to the largest estates. With the removal of walls and hedges "the contiguous ground of the park without was harmonized with the lawn within, and the garden was set free from its prim regularity, that it might assort with the wilder country without. Kent was the designer who chiefly worked the change, followed by Brown and many more." "He leaped the fence and said that all Nature was a garden" wrote Walpole regarding Kent.

Space does not permit the extended reference which the interest in the volume before us might warrant. Suffice it to say that "Gardens, Old and New" will adorn the table of every landscape lover; it should be in the library of every landscape architect and nurseryman. It describes in the most practical as well as the most entertaining manner details of the noted pleasaunces which may well serve as models for a later day. The volume is 10 x 15 inches, letter press of highest quality, engravings, many of them full page, of striking clearness, the whole printed on heavy paper, full gilt, bound in dark green huckram with appropriate stamped design. Price \$15. London: GEORGE NEWNES, Limited. New York: Imported by CHARLES SCRIBNER'S SONS.

Among Growers and Dealers.

E. H. Riehl is president of the Alton, Ill., Horticultural Society.

The Skirm nursery at Trenton, N. J., has been purchased by Frank Gravatt.

C. H. Perkins, of Jackson & Perkins, Newark, N. Y., was in California last month.

P. J. Berckmans, Sr., Augusta, Ga., has taken up his residence in Upper Montclair, N. J.

W. H. Wyman has entered the nursery business at Rockland, Mass., and Joseph Miller at Kniffin, Ia.

A. T. Story & Co., Taunton, Mass., have arranged for additional packing and propagating houses.

Charles H. Fink, for several years owner of the Lamar Nurseries, at Lamar, Mo., died January 26th, aged 29 years.

The nursery business of Franklin K. Phoenix may be assumed by the Phoenix Nursery Company at Delavau, Wis.

The Green Nursery Company, Perry, O., will build another large packing house on their grounds on the South Ridge.

John Walmsley, Max Phillips and Frank R. Hansill have incorporated the Greenmount Nursery Co., at Camden, N. J.; capital stock \$50,000.

John R. Barnes' address is now Yalesville, Conn., three miles from Meriden, on a farm of 300 acres, on the main line of the N. Y., N. H., & H. railroad.

Ellwanger & Barry, Rochester, N. Y., carried off the principal honors in the fruit exhibit at the Eastern New York Horticultural Society meeting.

Thomas Meehan & Sons, Germantown, Pa., secured more than half of the contracts, aggregating \$2,500 for nursery stock, to be planted in Pittsburgh parks this spring.

George S. Butler is president, treasurer, and manager, and Charles E. Stevens is secretary of the Butler & Jewell Co., proprietors of the Cromwell Nursery, Cromwell, Conn.

A contract for 2,000 ornamental trees and 7,000 shrubs to be set in Garfield and Douglass parks, Chicago, has been awarded to the Central Michigan Nursery Co., Kalamazoo.

The Chase Nursery Company is planting 400 acres of beets at Ethanac, Cal. It is understood that if the venture proves a success, the company will build a sugar factory.

William Longworth died February 15th at Bloomington, Ill. He was engaged in the nursery business years ago at Dubuque, Ia., and was the originator of the Longworth pear.

George Bunyard, the well-known fruit nurseryman, of Maidstone, has been elected chairman of the fruit committee of the Royal Horticultural Society, in the place of Philip Crowley, recently deceased.

Jacob W. Manning, Reading, Mass., was called the great evergreen man of the East, 25 to 35 years ago. He is one of the early herbaceous plant growers, making a specialty of that department 20 years ago.

Schuyler Worden, the originator of the Worden grape and Worden Seckel pear, of Oswego county, New York, died January 20. He was born within a few miles of the place of his death and was 90 years of age.

The secretary of the Wisconsin Horticultural Society has reported that Wisconsin produced 149 varieties of apples, 18 of cherries, 22 of grapes, 16 of currants, 11 of gooseberries, 14 of black raspberries, and 12 of red raspberries.

State Entomologist Garman, of Kentucky, has issued a public notice that certain nursery stock offered for sale by the Nashville Trust Co., trustee for the Cumberland Nurseries, Nashville, Tenn., is confessedly infested with San Jose scale, and is forbidden admission to Kentucky.

A correspondent in Martinsburg, in the extreme northeastern portion of West Virginia, says that W. S. Miller and his sons are the pioneers in the fruit business of that section, but hundreds of farmers have followed their example in recent years, until there are not less than 7,000 or 8,000 acres of orchards in Berkeley county alone.

J. H. Hale says there are no more peach belts. The belt is bursted. Peaches are grown now almost everywhere and can be had from May to November. Fifteen years ago there were no peaches in Georgia worth mentioning. Now there are 3,000 carloads being shipped from there. Plant your peaches on high ground. High points are coolest in summer and warmest in winter.

M. Crawford, Cuyahoga Falls, O., says in Horticultural Visitor, regarding H. M. Stringfellow's method: "I believe these preparations, which constitute the 'New Horticulture,' to be the most important discoveries in fruit growing made during the past century. Of course they will not be generally accepted for some time; but truth will prevail. Old, erroneous theories die hard."

Irvin Ingles, nurseryman and fruit-grower, Lafayette, Ill., says: "The prospect for fruit the coming season in this vicinity is better than it has been for a number of years. Owing to the fact that the fall was very favorable to the thorough ripening up of all kinds of trees, vines, etc., they went into winter in a perfectly dormant condition, after having made a splendid season's growth."

An extensive pulling out of peach orchards is in progress in Kent County, Maryland, to plant more profitable crops. From careful estimates it appears that there are now 450,000 peach trees standing, where 12 years ago there were 2,000,000. A few peach growers, however, agree with former State Entomologist Willis G. Johnson that the peach still has a great future in Kent, and are planting out fine young orchards.

The Stringfellow method having been the subject of a poem in the Rural New Yorker, Mr. Stringfellow writes to that journal: "If the poet wishes proof of the results obtained by me through this method, if he will write to J. C. Glover, station agent at Hitchcock, Texas, he will learn that I grew heavy crops of pears every year, and in 1894 shipped 10,000 bushels from 1,500 10-year trees, and then sold the orchard for \$20,000.

Professor W. H. Ragan, of Indiana, is completing the card catalogue of fruits begun by the late T. T. Lyon for the U. S. Division of Pomology. The catalogue of plums now contains about 2,300 cards, of which more than 1,000 represent distinct varieties, and nearly 1,300 are of recognized synonyms. The catalogue of grapes contains nearly 2,700 cards, of which more than 1,400 represent distinct varieties, and nearly 1,300 are of recognized synonyms.

Nurserymen who expect to ship into Georgia, North Carolina or Virginia from other states must file certified copy of their certificate of inspection with the state entomologists, Prof. W. M. Scott, Atlanta, Prof. Franklin Sherman, Raleigh, and Prof. William B. Alwood, Blacksburg, respectively. In each case special tags will be issued, one of which, together with copy of original certificate, must be attached to each package going into the states above named.

F. W. Kelsey, New York City, is quoted in the New York Evening Post as comparing the Ship-Subsidy Bill with the inconsistency and abuse of the congressional free seed distribution business. "What would be thought," says he, "of the proposition of an annual appropriation by Congress for the purpose of a free distribution to the favored congressional constituency of a million dollars' worth of lumber, or of groceries, or of textile fabrics—woolen and cotton goods?"

T. S. Hubbard, formerly of Fredonia, but now of Geneva N. Y., and who has sold out his interest in the business at Fredonia, sailed Feb. 14th on the Fuerst Bismark, of the Hamburg-American Line, for an extensive Oriental tour. The itinerary includes a month in Egypt, embracing the principal points of interest up the Nile as far as the first cataract; then a month in Palestine, followed by visits to Ephesus, Smyrna, Constantinople, Greece, Italy, Switzerland, Paris, and London. He plans to return home about July 1st.

Regarding the conditions in Kansas, the Kansas City Journal says: "A leading business man says this snow is worth five millions dollars to the Kansas farmers. If it stays on the ground a month and goes off gradually, it will be worth ten millions. Kansas has reached a period when it is impossible to heat her out of a 50,000,000-bushel crop under most favorable circumstances, and under favorable ones she will yield 100,000,000 bushels. If the snow sticks to the ground there will be a bumper crop. Acreage is larger than ever and stand is good."

Long and Short.

A foreman is wanted at the Greeley Nurseries, Greeley, Colo.

The John A. Salzer Seed Co., LaCrosse, Wis., offer all kinds of seed.

For evergreen trees and shade trees, call upon Jacob Manning, Reading, Mass.

French fruit stock, Orleans grown, is offered by Bobbink & Atkins, Rutherford, N. J.

The Feigly tree digger is featured in another column. It is declared to be the nurserymen's friend.

Baldwin cherry trees, direct from the originator, and other desirable stock is to be had at the Seneca Nursery, Seneca, Kan.

Hammond slug shot, made at Fishkill-on Hudson, N. Y., is for sale by the seedsmen. It has been used for twenty-one years.

Apple, peach, plum, cherry, Carolina poplar, arbor vitae, and apricots are offered by H. M. Simpson & Sons, Vincennes, Ind.

Attention is called to the attractive list in another column of the Mount Arbor Nurseries, E. S. Welch, proprietor, Shenandoah, Ia.

Hardy rhododendrons, azaleas, Japanese maples, magnolias, and rare evergreens are offered by Parsons & Sons, Limited, Flushing, N. Y.

Choice apple, Opalescent apple, standard pears extra strong one-year cherry, and Japan plums may be had at McNary & Gaines', Xenia, O.

W. N. Scarff, New Carlisle, O., offers seventy five varieties of straw-berries, new and old kinds at reasonable prices; also currants, goose-berries, etc.

Black and Honey Locust seedlings and Osage Orange plants will be found with A. E. Windsor, Havana, Ill. See his advertisement in another column.

The Ellwanger & Barry Nurseries, Rochester, N. Y., are headquarters for the highest class of nursery stock of all kinds. Their catalogue, just issued, is a general guide.

Ornamental trees, of extra size, and a fine line of ornamental shrubs; also standard and dwarf pears and plums, besides small fruits may be had of Nelson Bogue, Batavia, N. Y.

Andre L. Causse, 105 Hudson street, New York City, offers the surplus stock of the Andre Leroy Nurseries, Angers, France. A fine list of one-year stocks, just landed in New York, is listed.

Stark Bros. Co., is on hand as usual with a fine assortment of fruit and ornamental trees and shrubs. This company has mammoth storage houses and can ship on a day's notice. See list in another column.

J. G. Harrison & Sons, of Berlin, Md., offer on outside cover page, a list of Kieffer pears, all sizes; Bartlett pear, peach trees, a complete assortment of apple trees, asparagus roots and strawberry plants, and are prepared to ship at any time.

Fruit trees, grape vines, small fruits, ornamental trees, deciduous and evergreen shrubs, climbing vines and trailers, greenhouse plants etc., are offered at the well-known nurseries of Storrs & Harrison Co., Painesville, O. Personal inspection is cordially invited.

Robert Veitch, botanist and florist, died in New Haven, Conn., February 17th, aged 84 years.

Thomas B. Meehan, Germantown, Pa., last month visited nurserymen in Pittsburg, Toledo, Chicago, Indianapolis and other cities.

W. P. Bates has severed connection with the firm of Bates Brothers, at Floral, Kan., and has opened business at Winfield, Kan., under the name of the W. P. Bates Wholesale Nurseries.

The forty-third annual report of the Horticultural Society of Missouri, for 1900, has been received from the secretary, L. A. Goodman. It contains reports of the summer and winter meetings—much valuable material.

FRUIT GROWERS AT SYRACUSE.

The New York State Fruit Growers Association was organized at Syracuse last month with these officers: President, L. T. Yeomans; vice-presidents, John T. Roberts, Onondaga; John Potter, Niagara; secretary, F. E. Dawley, Fayetteville; treasurer, Charles Darrell. The association will meet in Syracuse next January.

PLEA FOR ITALIAN PRUNE.

Secretary Dosch, of the Oregon Horticultural Society, arguing for extending the growth of the Italian prune in the Northwest, says in the California Fruit Grower:

"While East selecting space for Oregon at the Pan-American Exposition, I made some observations which showed me that the East knows nothing of our prunes. At hotels where I stopped I made it the rule to always ask for a dish of prunes. At some of the hotels where they charge \$3 and \$5 a day, they brought me dishes of little French prunes which a Japanese restaurant would be ashamed to place upon the table. Not a single dish of our fine Italian prunes did I see.

DISSATISFIED FRUIT GROWERS.

The Orleans County Fruit Growers Association has been organized by a large number of fruit growers, who do not agree with the action of the Western New York Horticultural Society in regard to the fumigation of nursery stock. The following officers have been elected: President, L. N. Stebbins of Albion; vice-president, H. E. Wellman of Kendall; secretary, W. E. Laffer of Gaines; treasurer, D. D. Culver of Barre.

ENGLAND'S FRUIT IMPORTS.

For the twelve months ended December 31, 1900, the value of imports into Great Britain from all sources of supply of fresh deciduous fruits, citrus fruits, and "nuts used as fruits," reached the total of \$37,196,053 as compared with \$34,805,497 in the previous year. The imports for 1900 were distributed as to kind as follows: Deciduous fresh fruits, \$19,147,991; citrus fruits, \$12,532,399; and nuts, \$5,695,662. Among the deciduous fruits are named: Apples, the imports of which reached the value of \$5,951,823; grapes of the value of \$2,891,700; bananas of the value of \$1,908,502, with pears, cherries, currants, strawberries and other varieties following.

THE KEW GARDEN.

The famous Kew garden in England was originally a private fruit and vegetable garden of seventeen acres, belonging to the Prince of Wales, father of George III, who began to improve it as a botanical garden and pleasure ground in 1730. It has received additions from time to time, so that at present it contains 270 acres. It became public in 1840 and was placed under the control of Her Majesty's office of public works, with an annual appropriation for its maintenance of £32,650 or \$162,250. It is said to be the finest and most complete botanical collection and arboretum in the world.

ARKANSAS HORTICULTURISTS.

The Arkansas State Horticultural Society met in Little Rock in annual session January 31, and elected the following officers: J. P. Logan of Benton County, president; S. H. Nowlin, Little Rock, first vice-president; R. W. Gray, Judsonia, second vice-president; W. K. Tipton, Little Rock, secretary; Joseph W. Vestal, Little Rock, treasurer.

The committee on legislation recommended that state provision be made to prevent the introduction and spread of the San Jose scale, peach yellows and other contagious fruit diseases.

Keep Informed

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Plum on Plum. Americana and European.
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Shade and Ornamental Trees. Ash, Box Elder, Catalpa Speciosa, Elm, Linden, Silver Maple, Weir's C. L. Maple, Carolina Poplar.

Shrubs. Althea, Purple Leaved Berberry, White Tart, Honeysuckle, Hydrangea, Purple Lilac, Persian Lilac, Yucca, California Privet, Snowballs, Spirea Van Houte, Spirea Billardi.

Vines. Ampelopsis Quinquifolia, American Purple Wistaria, Large Flowering Clematis.

Climbing Roses. On own roots. Seven Sisters and other leading varieties.

Hybrid Perpetual and Moss Roses. General assortment.

Forest Tree Seedlings. Ash, Box Elder, Catalpa Speciosa, Elm, Black Locust, Silver Leaved Maple, Russian Mulberry, Osage Orange.

Fruit Tree Stocks. Apple Seedlings, Mazzard Cherry, Myrabolan, French Pear.

In addition we have one of the most COMPLETE LINES OF GENERAL NURSERY STOCK west of the Mississippi. Write for Spring Trade List

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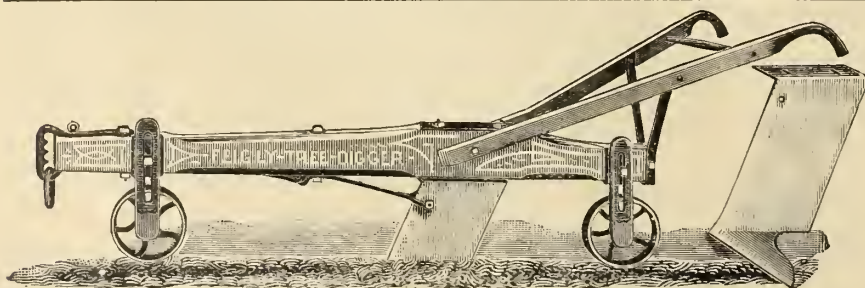
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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Horticulture, live horticulture, profitable horticulture, is a thing of constant improvement."—E. J. HOLMAN, LEAVENWORTH, KAN.

VOL. IX.

ROCHESTER, N. Y., APRIL, 1901.

No. 4.

NEW YORK STATE FRUIT GROWERS.

**Details of Information of New Association—Resulted from the Split
Over Legislative Matters Between Nurserymen and Fruit
Growers at the Western New York Horticultural
Society Meeting—President Yeoman's
Address—The Officers.**

At the formation of the New York State Fruit Growers' Association in Syracuse, on February 28, L. T. Yeomans, of Walworth, in an address to those present said:

The Western New York Society has reached a point where the interests of the fruit growers are antagonized by the nurserymen, with the determination that they will control its policy, notwithstanding that the very large majority of its members are fruit growers.

When the fruit growers discovered that they had no rights which the presiding officer of the Western Society would respect, they decided upon calling this meeting for the purpose of effecting an organization for mutual protection.

Transportation rates, facilities, legislation, how to gather and pack your fruit so that you may realize the greatest profit, how to store it, are burning questions. The most important which confronts us to day is the San Jose scale. It may mean the destruction of our orchards. All are asking—can it be held in check, or eradicated, by any known means except the total destruction of large trees? Our firm has not during the past two years planted a tree which has not been fumigated with hydrocyanic gas. We do it cheaply, quickly, and without injury even to peach trees, notwithstanding the assertion of nurserymen that it is unsafe, expensive, and dangerous. One of the largest nurserymen in Western New York, who has fumigated for several years all the nursery stock he sells, says the expense does not exceed 25 cents per 1,000 trees of regular dollar size. If all planters would refuse to buy trees not fumigated, the nurserymen would see it for their interest to fumigate. No trees can be shipped into Canada without fumigation, and yet some Rochester nurserymen raise a cry about the hardship it would be for them to be compelled to fumigate stock sold to you, but find it for their interest to comply with the Canadian law rather than abandon trade across the border.

I do not wish to pose as an alarmist, but I say to you that the San Jose scale is here with both the nurserymen and the orchardists; that it will tax your utmost energies and resources if you hope to keep it in check, and that the principal object of this meeting is to render aid to others, and gain information ourselves that will assist us in fighting this foe.

The matter of fumigating nursery stock was left to the committee on legislation. The following officers were elected:

President—L. T. Yeomans, Walworth.

Vice-Presidents—John Roberts, Syracuse; George W. Potter, Somerset; J. B. Calmer, Hilton; Ira Pease, Fruit Valley.

Secretary—F. E. Dawley, Fayetteville.

Treasurer—Charles H. Darrow, Geneva.

Executive Committee—T. B. Wilson, Halls Corner; F. A. Taber, Poughkeepsie; Dr. C. A. Ring, Appleton; S. W. Wadhams Garland; W. L. McKay, Geneva.

The president announced the appointment of the following committees:

Nomenclature—Prof. S. A. Beach, Geneva; Prof. L. H. Bailey, Ithaca; F. E. Dawley, Fayetteville; James E. Rice, Yorktown; S. W. Cornell, Newburg.

Entomology, Plant and New Diseases—Prof. V. H. Lowe, Geneva; Prof. F. C. Stewart, Geneva; Prof. M. V. Slingerland, Ithaca; Prof. Craig, Ithaca.

Legislation—S. D. Willard, Geneva; Albert Wood, Carlton; H. S. Wiley, Cayuga; F. M. Bradley, Barker; E. B. Norris, Sodus.

PACIFIC COAST TRADE.

Regarding nursery trade on the Pacific coast, the Oregonian, Portland, Ore., says:

"There has been but little call for trees for several years, and nurserymen have not been raising so many as usual, and so were not fully prepared for the present demand. Stocks are lower than they have been for six years. The greatest inquiry is for prune and peach trees, and but few are to be had. Some are selling yearling stock and trees that a year or two ago would not bring more than $3\frac{1}{2}$ to 4 cents now sell for $12\frac{1}{2}$ to 20 cents. Not only has the tree trade improved during the past year, but the business in flowering and other shrubbery, potted plants, etc., which fell off greatly during the hard times, has recovered, and there is a good demand for everything in the line of ornamental shrubbery, Japanese plants, etc. There is also a large demand for tree seeds. One dealer who had sold all of his apple tree seeds, received an order for more from a man who wants to raise 700,000 seedlings, and tons of peach and cherry pits are being imported. Seedmen are happy over the business outlook, and nurserymen are preparing to supply all calls for trees in the future.

"A nurseryman who has been in business near Sellwood for thirty years, says it beats all the call there is for trees this year. The principal demand is for prune trees, and he attributes this to good work done by the Agricultural College in talking up the prune business, and showing the certainty of profits and the sureness of the crop. He says that hereafter people who desire the best results from apples must go to the foothills to plant orchards. The valley lands are good for cherries and prunes, but apple trees run out and the fruit degenerates and pests flourish. This, he says, is because there is not enough lime and iron in the soil."

CONNECTICUT PEACH INDUSTRY.

J. H. Hale, South Glastonbury, Conn., says: "Within the past ten years more than 2,000,000 trees have been planted in commercial orchards of 100 trees or over, while there are probably between 100,000 and 200,000 more that have been planted out in smaller lots of 10 to 100, and Connecticut now produces as many peaches annually as Delaware, which was once the most noted peach state in America.

CROWN GALL IN NURSERY.

A Warning Against Allowing Disease to Obtain a Foothold in Nurseries—Has Been Overlooked Because of Connection with Aphids—All Seedlings Should be Examined—Nature of the Disease—Bulletins on the Subject.

C. A. Wieting, commissioner of agriculture, Albany, N. Y., has issued a circular upon the importance of guarding against the spread of crown gall in nurseries. He says:

This disease of the apple, almond, peach, pear, grape, raspberry, blackberry, walnut and some other plants, is one of the most serious that threatens the cultivation of nursery stock. It has been overlooked by most nurserymen because the galls were supposed to be caused by wooly or other aphids; this was a very natural error because aphids often make their homes in the galls, indeed both the crown galls and the galls produced by aphids are found frequently on the roots of the same trees. The presence of various fungus growths of nematodes and the aphids, have made some people attribute the disease of crown gall to these causes, but the fact that none of them are a cause is well established, and the origin of this particular disease is still very obscure to our best botanists and plant pathologists, therefore no satisfactory remedy is known except burning and certain care in the sorting of stock for planting.

The crown gall may be present in a block of trees or plants, and if other kinds of stock are planted on the same land they are almost sure to contract the disease, as it is supposed to remain in the soil. A case is known where three crops of peach trees were raised on the same lot, following a block of raspberries. Ten per centum of the first crop of peach trees were ruined by crown gall, fifty per centum of the second crop and all of the third crop; plants propagated from the raspberries were affected with galls.

Crown gall may be found on the roots of one year seedlings; on the roots of older trees, at the surface of the ground; and occasionally two or three feet up on the trunks of the affected trees. They are of all sizes up to two or three or more inches in diameter.

One year peach trees affected with crown gall will not usually live to bearing age, and the injury to other plants and trees is very serious.

Nurserymen should examine all their seedlings with great care and reject all that have galls on them, and no trees should be planted in the orchard that have crown galls; no trees should be considered fit to plant that come from blocks that have ever been found infected with crown gall.

All galls on the roots are not crown galls and a distinction between them may be made, but surely it were safer to burn all plants with galls on them than take any chances.

The galls caused by aphids are usually knotty and very hard, while the crown gall is rather soft and as easily cut as a turnip, its tissue being brain-like in formation. It sometimes appears as a warty formation on the larger roots or collar of the trees and again it may be on the smaller roots, spherical in form, and one inch or more in diameter.

Sulphur and copperas have been used as remedies but the results have not been uniform or satisfactory.

All authorities agree that this is a very contagious disease and that great care should be exercised to prevent its spread. Nurserymen should be especially careful to examine the roots of their stock at the season of the year when exposed to view. The disease may be very general in a block and not be specially noticeable in the summer months.

For further information on the "crown gall" reference may be had to the following bulletins of the experiment stations: No. 170 New York Agricultural Experiment Station, Geneva, N. Y.; Nos. 79, 104 and 121 of the Ohio Experiment Station, Worcester, Ohio; the tenth annual report of the Arizona Experiment Station, Tucson, Arizona, and reports of the botanical section of the New Jersey Experiment Station, New Brunswick, N. J.

C. E. Baldwin & Co., of Augusta, Mich., was incorporated Feb. 13, for the purpose of increasing the wholesale and retail nursery business. Capital stock, \$5,000.

NOTED FRENCH NURSERIES.

The firm of Transon Brothers was founded some years before 1750 by the ancestors of Messrs. Paul and Eugene Transon; but up to 1855 it was a very small business with only a local trade. Six men were employed in the nursery.

Messrs. P. and E. Transon who spent several years working in the principal nurseries of England and Germany and other countries, had, in their travel remarked that the young stock, such as seedling plants, cuttings and grafts, wanted for nursery planting were mostly grown under glass in all these countries and were then produced at a pretty high price. When they came back home in 1855 they devoted themselves to the growth of these small nursery stocks, which owing to the exceptional conditions of climate and ground of Orléans, they were in a position to grow at cheaper prices than they were in foreign countries. They began then to export their plants.

Since then the business has been increasing yearly and in 1892 when they sold their nursery they had about 200 men employed in the 160 hectares or 400 acres of ground.

In 1892 Messrs. P. and E. Transon sold their business to their old collaborators who were Albert Barbier who was admitted as the 14th man in 1863, Eugene Barbier, brother of the former, in 1865 as the 21st. They became foremen of different departments and later on directors of the nurseries. René Barbier, son of Mr. Albert Barbier, was in the office since 1884.

From 1892 up to 1898 the business has been conducted under the name of Barbier Brothers & Son, Léon Barbier, another son of Albert Barbier, was then admitted as a partner and the name of the firm has been changed to Barbier & Co.

The specialties of this nursery are, just as with their predecessors, the growth of roses, ornamental trees and shrubs and principally small nursery stocks one, two, and three years old. They grow more than 5,000 varieties of all sorts of plants, and are dealing all over the world, especially Europe, America, Australia, South Africa, etc.

Last year they had exhibited in Paris a general collection of conifers, 473 varieties and about 25,000 small plants one and three years old, in nearly 3,000 sorts. Albert Barbier, who was a member of the jury, has been awarded the cross of chevalier of the Legion of Honour. He was for some years, as well as Eugene Barbier, officier of the Mérite Agricole.

HOW TO FUMIGATE.

We repeat Prof. W. G. Johnson's directions for fumigating nursery stock:

Trees should be dug from the nursery and loosely packed in the house, either on end or flat on floor. The chemicals used are as follows:

1. Cyanide of potassium (98 to 99 per cent. pure).
2. Sulphuric acid (specific gravity 1.83)
3. Water (clean).

First, measure the acid in a glass beaker with the ounce-mark on the side, and pour it in a 2 or 4 quart earthen jar. Do not use iron or metal vessels of any kind, as the acid will ruin them. Second, measure the water and pour this on the acid. Third, drop the cyanide, paper and all, into the liquids and close the door, lock it and leave exposed for at least half an hour. No person should be permitted to enter the building. One man should always be responsible for the fumigation and keep the time accurately, so that the house can be opened and thoroughly ventilated later.

There is a slight formation of steam when the water is poured on the acid, but this is not dangerous. When the paper or bag of cyanide is dropped in the liquids there is a bubbling similar to that produced by a piece of red hot iron dropped in cold water. The dense cloud of so-called steam produced is one of the most deadly gases known to chemical science. It has an odor similar to peach pits. The lungs once filled with it would produce instantaneous death, therefore, be very cautious about breathing it. There is no danger, however, when properly used.

In estimating chemicals, we determine the cubic contents of the room. For instance, for a house containing 564 cubic feet, multiply by 0.25, as we use 0.25 gramme cyanide per cubic foot. Thus, 564 multiplied by 0.25 gives 141 grammes, the entire amount of cyanide. To reduce this to ounces divide by 28.35, as there are 28.35 grammes in an ounce. Thus, 141 divided by 28.35 gives 5 ounces (a fraction less), the amount of cyanide needed for this house. The cyanide once determined, the acid and water are easily estimated. I always use a half more acid (liquid measure) than cyanide, and a half more water (liquid measure) than acid. Therefore, if we use 5 ounces cyanide we want $7\frac{1}{2}$ ounces acid and $11\frac{1}{4}$ ounces water.

I have found that all high grade, well matured nursery stock can be safely fumigated with the 0.25 per cent. formula for one-half hour. But if June buds, low grade peach, plum or cherry are to be fumigated I recommend using 0.16 to 0.18 gramme per cubic foot, or what is generally known as the 0.16 to 0.18 formula.

Fused cyanide is white as snow and resembles lump sugar. If swallowed, a piece the size of a pin's head would destroy life. Label "poison" and do not expose to air, as it absorbs moisture readily and is ruined. Never fumigate a peach tree twice. Always empty the residue left in the jar in some protected place or bury it.

A perfectly gas tight enclosure is necessary. Many nurserymen build their fumigation houses in their packing sheds while others erect a simple and inexpensive house. First, a good strong frame is built and covered outside with $1\frac{1}{2} \times 12$ inch Virginia pine boards and $\frac{1}{2} \times 4$ inch batting. The interior, including the floor, should be lined with two-ply cyclone or heavy rawhide building paper, over which a good quality of 4-inch flooring is laid. Any ordinary roof can be used.

NOVEL DEFENSE IN COURT.

Whether an undue intimacy with intoxicants can be set up as a defense in an action where the defendant has signed an order for nursery stock and does not wish to pay for the same, is the question a Supreme Court jury is wrestling with this morning, says the Rochester Post Express of March 15th.

Hinman S. Taylor brings suit against John Long, of Fairport, to recover \$75 for the non-payment of nursery stock. The defense contends that the contract is void on the grounds that the plaintiff's agent, H. M. Golden, plied him with liquor until he became pliable enough to sign any paper. The first witness called was an employee of the defendant named Lucas. He testified to writing a letter to the Rochester firm admitting the sale.

Long was next called, and told a most peculiar story. He said he could not read, but was able to sign his name under favorable circumstances—that is, when he was drunk. Being a victim of nervous disorder, he says, his limbs shake so that it is impossible to scrawl his signature unless steadied by liquor. The more rum he absorbed, he explained, the prettier he could write. On the day he met Mr. Golden in the Kirkwood hotel, he said he drank impartially of ale and porter.

"I must have been awful drunk to have signed my name to that order," said the witness. He stated he could not remember signing any paper, but did recollect that he slept a long time in the barn back of the hotel. His twitching hands and muscles bespoke of his nervous temperament. He told the

jury before leaving the stand that the barkeeper and the agent had to place the glass to his lips each time, as he could not do so without spilling it. Therefore, he contends, they literally fed him on liquor.

A motion for a non-suit was denied. After hearing all the evidence, Justice Nash directed the jury to find for the plaintiff in the sum of \$76.39.

LEGISLATION NOT NEEDED.

Following is a copy of a letter transmitted to the Assembly Committee on Agriculture at Albany, N. Y., by Frederick W. Kelsey, New York city, under date of March 6, 1901:

GENTLEMEN—Permit me to add to the expressions of objection that have already been made to you against the passage of the bill making it obligatory to fumigate all nursery stock before shipment. The advocates of this measure appear to have overlooked two very important considerations.

First—That the transmission of the San Jose scale is by no means confined to nursery stock, but is disseminated in various other ways, including the transmission of the pest in fruit itself.

Second—That many of the ablest entomologists pronounce the stoppage of this dissemination impossible, and that the results need not prove specially disastrous if proper care is exercised by those interested in fruit culture.

The first proposition indicates clearly enough the injustice of the proposed bill, advocated by one class—the fruit growers, at the expense and detriment of the other class—the nurserymen. If the bill is correct in principle it should be made to apply to both classes. In other words, it comes with very poor grace for one very dark kettle to call the other black. The passage of such a measure would be class legislation pure and simple, and as was so ably presented by representatives of the Nursery Association at a recent hearing, would cause great loss and injury to the nursery interests, a very important interest of the state.

We have only to recall the excitement and panic that has been caused by the advent of many of the injurious insects to realize that history is merely repeating itself in the attempt to remedy irremedial causes and effects by legislation.

There are over-zealous scientists, with a large contingent of well-intentioned laymen and other sincere people who see in the advent of every new species of destructive bug or fungous insect, immediate or prospective destruction of a large part of the vegetable portion of the universe. From the locusts of ancient Egypt down to the phyloxera, the potato bug, the pear blight, peach yellows, and last but not least, the San Jose scale; something must be done by "legislation," and that quickly, or all will be lost.

Not one of the dire predictions have ever materialized, and we find to-day that many who have given the subject of the San Jose scale the most attention, have modified their fears of wide spread evil to the conviction that the "scale scare is a bug-aboo" that will be readily controlled by natural and local causes, as has been the experience from time immemorial with all this class of insect pests.

Regarding the second proposition above mentioned, no more convincing statement can be made than that recently given out by that able and practical scientist Prof. John B. Smith, state entomologist of New Jersey, who says:

"Where the San Jose scale is worst, success in checking it is greatest, because the growers are alive to the necessity for active operations. Crude petroleum as a winter application will prove the most successful insecticide. The mechanical mixture of kerosene and water, 10 to 15 per cent. kerosene, answers perfectly for summer treatment. The damage is locally a serious matter and has cost some orchardists a few hundred trees; but there is nothing that has affected the total fruit crop. *There is no prospect whatever of extermination, but every indication that control will be complete so that none but the man who is unfit to grow fruit will be hurt.*"

Here is a direct answer from an authoritative source of unquestioned competency and integrity who refutes in the most direct and convincing manner the claim of the advocates of the fumigation bill, and those

asking for special consideration at the hands of the legislature, even were the legislation desired not inimical to other important interests of the state.

The experience of the Massachusetts State Commission in attempting to eradicate the gipsy moth by legislative enactment, emphasizes also the correct position of the entomologists, in that all the legislation in the world will not eradicate the San Jose scale or similar pests when once established and disseminated, as the San Jose scale is in this country to-day.

What can follow, and undoubtedly will follow, without the aid of special class legislation, is the application to this problem of the great principle of self-reliance and self-preservation, by individuals whose interests are effected, and with whom the only effectual remedy for all those insect evils will hereafter as heretofore remain.

Very respectfully,

(Signed)

FRED'K W. KELSEY.

THE SAN JOSE SCALE SCARE.

Under this caption *American Agriculturist*, of March 2d, says editorially:

This pest is responsible for the biggest furore ever caused among American fruit growers in general and New York state horticulturists in particular. And rightly so, for it threatens orchards and nurseries, whose products in this state alone represent an annual value of millions of dollars. Even comparatively small townships in Central and Western New York ship thousands of carloads of fruit products yearly, while young stock is shipped from York state nurseries by the train-load.

The interests of fruit growers and of commercial nurserymen are alike in this matter. They should unitedly fight the common enemy; Division of forces, in this crisis, is worse than useless.

"More scared than hurt," perhaps best expresses the horticultural situation in the Middle, Southern and New England States just at this time. Yet if the scare forces all to co-operate in combating the scale, much dreaded injury may still be prevented. For the matter is quite as important in all the region cited as in the Empire state. Indeed, Prof. Britton says the danger of this pest in Connecticut is greater from within than from without the state.

We believe that, with a few important exceptions, nursery stock should be fumigated with hydrocyanic acid gas. This treatment kills all living insects, not San Jose scale alone. It is cheap and simple, and with proper judgment nursery stock so treated is not injured. Just how to do all this was described in *American Agriculturist* Feb. 16. Many nurserymen in various parts of the country have successfully fumigated for several seasons. Hundreds more will do so this spring. It is probably quite as needful in other states as in New York. Further directions will appear later as to what stock to fumigate, what not to treat, etc. It is "no great chore" to fumigate nursery stock, and by being able to guarantee one's trees free from scale the nurseryman so far increases his sales and profits that lots of them are doing this for their own advantage without waiting for legislation. The sooner this practice becomes general, the greater will be nurserymen's profits. And the very few who now criticise *American Agriculturist's* position will then be warmest in praise of our policy.

Yet to compel nurserymen to fumigate, and let the fruit growers alone, will not fully cover the case. The scale is now so well established that legislation which fails to reach the fruit grower will be insufficient to check the further spread of this pest. This is "as true as preaching." And progressive fruit growers realize the fact and are already combating the scale, by the methods described on Page 318 in this issue. These people, like the progressive nurserymen, are looking out for No. 1 without waiting for the legislature to act. But while we believe that such self-help is the best help, those fruit growers or nurserymen who jeopardize the welfare of others as well as their own interests by neglecting the pest, require some law to induce them to be more mindful of the general good.

The apple blossom has been adopted by Arkansas as the state floral emblem.

AS WE HAVE SAID.

The *Rural New Yorker* says: "Dozens of fruit twigs are sent us for examination from all over the country. People are reading about the San Jose scale, and they begin to examine their trees, perhaps for the first time. Out of all the specimens sent but one has proved to be the true pernicious scale. The others are mostly the common oyster-shell bark-louse. All this shows how the constant hammering on the scale question has waked up the people and taught them to use their eyes."

And it also shows that when the "scale scare" is on, fruit growers as well as entomologists should keep cool and ascertain whether the reported cases of San Jose scale are not "mostly the common oyster-shell bark-louse."

RESULTS OF LEGISLATION.

The Florists Exchange in its issue of March 23d obtained some expressions regarding the results of legislation on the subject of San Jose scale among which were the following:

STORRS & HARRISON CO., Painesville, O.—"We think that the scale legislation of the various states has been decidedly beneficial in making both nurserymen and planters more careful both as regards this and other insects; still it has not been an unmixed benefit either to the fruit grower or nurseryman, as the great fuss that has been made over it has frightened foreign nations so that both fruit and nursery stock in some cases have been barred out. People are finding out that it is simply another pest added that must be taken into account by both nurserymen and fruit growers. We would favor a national law hearing on scales and other insects—one that would be uniform in interstate commerce; but would oppose any law that required trees, etc., to be examined at port of entry, as it would not amount to anything as far as keeping out insect pests is concerned; it would ruin more or less of the stock, and would be an unbearable nuisance."

W. & T. SMITH CO., Geneva, N. Y.—"Legislation with respect to the San Jose scale was necessary, and our present law in New York State providing for the inspection of nurseries is a helpful one. It is absolutely necessary that nurserymen should keep on the lookout and be sure that their nurseries are free from the pest. "Eternal vigilance is the price of liberty." Too much has, however, been published regarding the San Jose scale, and the public is becoming frightened unnecessarily. Our state laws now in force are sufficient, together with the co-operation of the nurserymen, to protect the planters from any extensive spread of the pest. A national law would very much simplify, for nurserymen, the conditions now prevailing, by making regulations identical in all the states, and would constitute an added safeguard, as some states now have no laws, and others only imperfect ones, with respect to insect pests."

JACKSON & PERKINS CO., Geneva, N. Y.—"Without doubt the legislation now enforced with respect to the San Jose scale has been very beneficial, for without the very careful and conscientious inspections which have been made by the state officials the scale undoubtedly would have spread to a far greater extent. A national law, with ample provisions for more thorough inspection, would without a doubt be far more beneficial and desirable than so many and so varied state laws. It seems to us that national legislation upon this subject is becoming exceedingly necessary, for nearly every state has different legislation upon the subject, and it requires no little care and study to keep oneself posted sufficiently to fulfill the various requirements in all instances."

The co-partnership heretofore existing between Frederick J. Rea and Charles H. Rea, in Norwood, Mass., as nurserymen, under the firm name of Rea Brothers, has been dissolved by mutual consent. Frederick J. Rea will be sole owner and proprietor of "The Norwood Nurseries," so-called.

A NOTED NURSERYMAN.

Thomas Meehan, Senior Vice-President of the Academy of Natural Sciences of Philadelphia, the Most Widely Known Living Authority on the Subject of Vegetable Biology—The Intimate of Darwin and Agassiz—Author of Many Papers Some of Them Recording Discoveries in Plant Life.

We take especial pleasure in presenting herewith a brief sketch of the career of Thomas Meehan, one of the most noted men whom nurserymen take pride in counting as of their number. It is reproduced from the Philadelphia "Record" of March 5th, the occasion for it appearing in the introduction of the article:

A portrait in oil of Thomas Meehan, senior vice-president of the Academy of Natural Sciences, has just been completed by the well-known artist, James L. Wood, and will very shortly adorn the wall of the institution mentioned. Throughout his long career as a scientist, Mr. Meehan has steadfastly avoided publicity of every kind, and it was with difficulty that his brother scientists prevailed on him to sit for his portrait and consent to join the gallery of eminent men already possessed by the academy.

Mr. Meehan, now recognized as the most widely known living authority on the subject of vegetable biology, comes of mixed Irish and English parentage, and was born in London, March 21, 1826. His father was one of the best known private gardeners in England, and until his death served in that capacity at St. Clare, Colonel Harcourt's magnificent residence, near Ryde, Isle of Wight.

Thomas was the eldest of a large family, and his school education was limited and brief. He was a hard student, however, and the greater part of his knowledge is due to his own unaided efforts. During intervals while learning the gardener's business, he taught himself the rudiments of Latin, Greek and French; and at the age of 14 published his first scientific discovery in a paper on the sensitive character of the stamens of the portulaca. About the same time he produced a hybrid between two distinct species of fuchsias (*fulgens* and *longiflora*), which was named *St. Clare*. This precocity attracted the attention of Dr. Thomas Bell Salter and some other prominent English botanists, and they greatly assisted him in pursuing that study. Through Dr. Salter's influence he entered the famous Kew Gardens as a student while Sir William Hooker was in charge there.

On the invitation of Robert Buist he came to this country. Mr. Meehan landed in New York on his twenty-second birthday, and was given the task of establishing Mr. Buist's new nurseries at Rosedale in West Philadelphia. Subsequently he

became superintendent of Bartram's Gardens, then owned by the Eastwick family; and early in the fifties, head gardener for Caleb Cope, at his Holmesburg property, now the Forrest Home. While at the latter place, he succeeded in flowering the *Victoria Regia*, for the first time in America.

In 1853 Mr. Meehan entered business for himself as a nurseryman in Upper Dublin, shortly after founding and establishing nurseries at Germantown, where to-day are grown the largest and finest deciduous trees in the country. Just prior to this he had been invited to edit the *Gardener's Monthly*, founded by D. Rodney King, and continued its editor for 30 years, until the death of the owner, Charles H. Marot, and the sale of the paper to a New York concern. In addition to this and the control of his business interests, Mr. Meehan at one time edited departments in six other journals. He is one of the oldest living members of the American Association for the Advancement of Science, and was one of the first fellows chosen, besides holding membership in many other botanical and scientific organizations here and in Europe. He was elected a member of the Royal Wernerian Society of Edinburgh before reaching the age of 21, this being the first time such honor had been conferred on a minor.

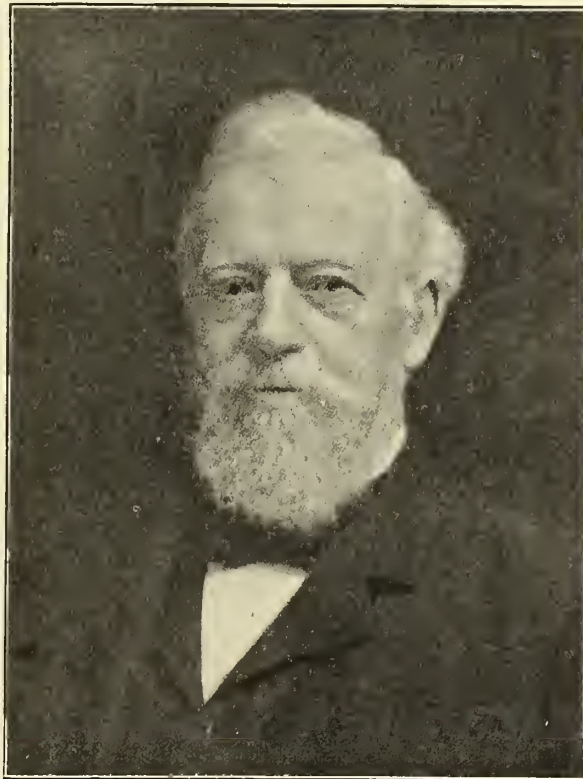
The intimate of Darwin, Agassiz and other giants, Mr. Meehan was elected vice-president of the Academy of Natural Sciences as a compromise candidate, 24 years ago, and has held the office uninterruptedly ever since. Nearly 40 years ago, in conjunction with Durand, and later Redfield, he commenced the arrangement of the herbarium at the academy, which work will be completed in a month or two from this time. He is now head of the botanical section, and ex-officio, a member of the Academy Council.

It is said that during his life Mr. Meehan has written several hundred papers, a large proportion of

which recorded original observations or discoveries. One of the latter determined the fact that conditions of vitality determine sex in flowers. This theory has been extended in other directions by medical scientists. In the fifties he published "*The Handbook of Ornamental Trees*," and began in 1876 his great work "*Flowers and Ferns of the United States*," published for some time by Prang & Co., and continued in *Meehans' Monthly*.

Elected 24 years ago a member of the School Board for the Twenty-second section, Mr. Meehan served continuously until now. For 19 years he has represented the Twenty-second ward in Common Council, and now divides with one other member the honor of being Father of that body. He was the originator of the movement in favor of public parks, creator of the Municipal Government and Fairmount Park Committees, and was the founder of the great Commercial Museum, of which he is now a trustee.

The portrait, now the property of the academy, is very happily executed. The pose secured is characteristic, and the coloring true to life.



THOMAS MEEHAN.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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Annual convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., APRIL, 1901.

THE ANNUAL CONVENTION.

The twenty-sixth annual convention of the American Association of Nurserymen will be held in Niagara Falls, on June 12th and 13th. This being the first time the convention has been held in the East in several years and it being the occasion also of the Pan-American Exposition in Buffalo, only a few minutes' ride from the Falls, the attendance should be large.

Secretary Seager has been working diligently to secure desirable accommodations for the members of the Association at the convention. At first it seemed that it would be impossible to obtain what was wanted in this respect on account of the very great demand for hotel accommodations on and after the opening of the Exposition, on May 1st. Rates of \$4 and \$5 per day were demanded in such hotels as could accommodate the number of nurserymen that usually attend the conventions and could offer an assembly hall for the convention sessions, as well as a lobby large enough for the congregation

of the members during the recesses. Finally, after much correspondence, Secretary Seager obtained what must at once be admitted to be most favorable terms in consideration of the pressure for hotel reservations at Exposition time. He is able to announce that a minimum rate of \$3 per day has been secured at the Cataract House, with choice of rooms at \$4 and upwards. In this way everyone may be accommodated; and it is unnecessary to refer to the fact that at this hotel the best service and greatest number of conveniences are obtainable. The members will have the use of an appropriate assembly hall for the convention sessions, and a large lobby for the work of the meeting between sessions, which is not the least important part of the annual gathering.

A railroad rate of one fare and a third to the convention has also been obtained by the secretary. But, in order to secure this rate, it is absolutely essential that the members procure the necessary certificates at the place of starting, so that these certificates may be turned over to the railroad representatives at the convention. All who have attended the conventions know the importance of this; for on more than one occasion the reduced rate has been secured only by collecting every certificate in the room. Therefore, this matter is one of the most important connected with the trip to the Falls.

FEDERAL LEGISLATION.

The committee on legislation of the American Association of Nurserymen will report at the Niagara Falls convention regarding work at Washington in connection with the federal bill for the regulation of the transportation of nursery stock.

Silas Wilson, Atlantic City, Ia., of the committee, says: "The last trip made to Washington was, in my judgment, the most important ever made by the committee."

C. L. Watrous, Des Moines, Ia., chairman of the committee, says: "We found that the Californians had arranged to put an amendment to the regular agricultural appropriation bill when the same was in the Senate, after having passed the House. This amendment would, without doubt, have been adopted in a day or two, if we had not reached there, in which case it would have been impossible to eliminate it from the bill, as our congressman informed me. It provided that all foreign stocks shipped into this country might be held up and opened at the port of entry and if the young men at Washington thought there was anything wrong they might confiscate the stock. In our judgment it was a very ill-advised piece of legislation."

KEEP COOL AND COUNSEL.

This is the advice given to fruit growers and nurserymen by a leading horticultural journal. American Agriculturist, whose comment on the San Jose scale is reproduced in another column.

"All interested should co-operate with nature." Says the journal referred to. "But let us keep cool, do nothing rash, but counsel together and stand as one man, allied with nature, against the common enemy. A single season of such effective co-operation would go far toward controlling the scale."

Regarding legislation, American Agriculturist says:

"The Maryland law is backed by every nurseryman and fruit grower in the state. Public sentiment is so strong in its

favor, there has not been a single case of compulsory removal or treatment of plants. In this movement in the Eastern United States, Maryland is the acknowledged pioneer. The \$8,000 expended annually has been worth millions to her fruit and nursery interests. Never in her history has the sale of nursery stock been so great as since the fumigation law went into effect."

It is legislation and proposed legislation that keeps alive the San Jose scale question. We would be glad to drop the subject and proceed with the growth and sale of nursery stock, but if the matter is not watched the nurserymen will be subjected to drastic legislation resulting from activity which is not influenced by the very sensible advice of the American Agriculturist—keep cool and counsel together.

STANDARD NOMENCLATURE.

Just as the demand for a standard horticultural nomenclature became imperative, the first two volumes of Professor Bailey's *Cyclopedia of American Horticulture* were issued by the publishers, the Macmillan Company, New York. It would seem wise for the American Association of Nurserymen to adopt this work as its standard. This suggestion is implied by F. H. Horsford, of Vermont, who says in his catalogue:

Until recently the best authorities for garden purposes were Index Kewensis and Nicholson's *Dictionary of Gardening*. Now the best authority for America is the *Cyclopedia of American Horticulture*, which will be completed in 1901. Two volumes have been published, including A to M. At the time these volumes were published they contained all the names of plants known to be sold in America. They also include hundreds of wild flowers which one might not think are in cultivation. Of course new plants are coming in and the *Cyclopedia* will soon be behind in this respect, but a small volume is hoped for in which the novelties will be described, if sufficient interest is expressed. Such volumes will doubtless contain a cumulative index, so that one need not look in more than two places for an account of any plant cultivated in America. It is to be hoped that all who think such a series of annual volumes necessary will show their interest by urging the publishers (the Macmillan Company) to undertake this work in order to keep the *Cyclopedia of American Horticulture* always up to date.

PROGRAMME AT THE FALLS.

There is every reason for an entertaining and profitable meeting of nurserymen at Niagara Falls in June. The season is prosperous, the place of meeting is attractive, the accommodations provided are the best, and the proximity to the great Exposition affords all that could be desired in the way of added inducement to make the trip. It may be said right here that inquiry will prove that nowhere in Buffalo or the Falls or at any nearby place, could so favorable terms at hotels be obtained as those which the work of the secretary and the executive committee of the Association has secured for the members of the Association, as announced in another place in this issue. The demand for hotel accommodation during the Exposition has been very heavy, extending to all places outside of Buffalo, and even as far as Rochester where people plan to stop and to go to Buffalo on the trains which will be run hourly from that city.

It will be of special interest to know that Professor L. H. Bailey will be one of the speakers at the convention. He will discuss the question: "What Becomes of the Nursery Tree?" and it is safe to predict that what he will have to say upon this

subject will be of great practical value to every nurseryman present. George A. Sweet, of Dansville, and John Watson, of Brenham, Texas, will address the convention.

The plan is to avoid the presentation of long papers at the sessions; indeed, it was suggested that there be no stated programme to frighten the nurserymen from the convention hall. It is probable that the programme will be simply an announcement of what may be in general expected at the sessions, without effort to follow any set arrangement and to give free scope to discussion of practical subjects in such manner as shall best conserve the wishes and the welfare of those present. This plan will undoubtedly attract the members to the sessions and it is expected that it will draw out discussion of mutual benefit.

It has also been suggested that the sessions of the convention be confined to the morning—extended somewhat longer than usual, perhaps—and that the time which has heretofore been occupied in afternoon and evening sessions be devoted to business matters among the individual members; also, that the convention be extended to three days, so as to permit of opportunity to visit the Exposition and still enjoy the benefit of the reduced railroad rates on the return trip. It is probable that the matter of extending the convention to three days, as well as the matter of the sessions and the programme, will be settled by the members at the first session of the convention as usual, upon report of committees.

The Exposition may be reached in a few minutes' time either by trolley cars or steam cars from the Falls. The very favorable rates secured at the Cataract House at the Falls for the nurserymen should be an inducement to bring members of families to the convention headquarters.

OUTLOOK IN THE WEST.

W. M. Bomberger, Harlan, Iowa, writes: "Outlook in the West is good. There has been some tendency for some to weaken on prices in wholesale and retail in the West. This, I think, is a great mistake, and shortly it will be seen. Generally, all over the states it was wet last season, moisture in great abundance in the ground. With this, and planters and farmers knowing it, and hogs 5 cents, cattle 4 to 5 cents, and corn 30 cents, and a general feeling to plant and improve, on the part of every homemaker, and farmer and land owner, I predict there will not be enough this season to go around in the way of stock. There may be overstock in strawberry plants and the peach. Real estate values on all lands in city and country in the West are remarkably stiffened, and expanded 15 to 30 per cent. up above highest water mark, and this is an indication of plenty of money, lots of income, and not any place to put the money, and if it is put into realty, that must be improved. There is some foolishness going on in price cutting—it is a mistake."

It is stated that there is a demand in Michigan for a legislative bill to protect farmers against unscrupulous tree agents.

Large quantities of barreled apples are being shipped over the R. & W. railroad from cold storage houses. Total shipments thus far and ready to ship, over 2,000,000 barrels. In general, the fruit has kept remarkably well. A Waterport shipper reports shrinkage imperceptible; a Monroe county shipper says one barrel in 90. Prices run from \$1.90 for seconds to \$2.40 for firsts. A lot of 2,300 barrels was recently sold for \$2.35 a barrel. A lot of 2,700 barrels was offered for \$2.30. Some are holding for \$3, but more fruit is sold and ready for shipment than cars can be obtained for.—Rochester Post Express.

WINTER BUDDING.

Described by H. M. Stringfellow Who Adds an Adaptation for Nurserymen—Suggestions for Northern as Well as Southern Nurserymen—Successful Results of Fall Budding—The Preparation and Use of Waxed Cloth—Copperas for "Chlorosis."

Editor NATIONAL NURSERYMAN:

As you did me the honor recently to quote my remark that "of all men I was the nurseryman's best friend," I will try still further to prove the fact. I published in my book some years ago a full description of winter budding and for the information of some of your readers, who may not be familiar with it, I will repeat it now, and also give an adaptation of the method which will be of great value to nurserymen.

The original object of winter budding was to quickly change an orchard of bearing trees of no value into more desirable kinds. It is done thus. Cut away in winter all the limbs to within three or four feet of the ground and select three or more to be budded, cutting off the others. Insert the knife under the bark of the limb, just as if a bud was to be cut, and draw it downwards about an inch, pressing the cut bark back a little to keep it open. Next cut the bud from the scion, just as for ordinary budding, and lay it on the cut surface, after which press the flap back and tie firmly, the bud being thus completely covered. The leaf stalk should be cut away close to the bud to allow the flap to lie close.

We can do this any time in Texas during the winter, but where the cold is greater it will be safer to perform the operation when the sap begins to move in spring and buds to swell, and it can be continued until the buds are half grown. Of course, the buds must be kept dormant in cold storage. In budding thus on large limbs, it is safer to take the following precaution, which will make success certain: After inserting the bud and pressing the flap down, lay a piece of waxed cloth, about one inch square, over the flap, and then tie firmly. The air will thus be entirely excluded as well as the rain, and failure very rare. I learned this in budding orange trees during very hot weather, after repeated failures with the common way, and the same method can be applied with great success in budding all deciduous trees when conditions are unfavorable. In fact, it was so satisfactory that after trying it I used the cloth always; while a little slow, still with a boy to tie, 500 buds can easily be put in per day.

But while winter budding is very useful at the beginning of the season for purposes named above, it is equally so later on in summer and fall, when the bark has ceased to slip. This I did not know until last fall, and it is the point that will be particularly useful to the nurserymen, who often loose much of their summer budding or are unable in the rush of work, to bud all their stock before the bark ceases to slip. I found it out thus. A nurseryman in California who had read of winter budding, wrote to ask me whether it would succeed also in the fall. He remarked that a large part of his summer budding had failed, and that if I thought there was any chance of success he would try it. While never having done so myself, I saw no reason why it should fail. I advised him by all means to try it. He did so with a large number of apricot trees and had perfect success, using the waxed cloth as advised above.

In order to test the matter I then put in some buds about the first of October and kept it up until now, February 8th, and nearly all have taken. I find, however, that the cloth and string must remain on longer than in summer budding, a full month being necessary in cool weather, and I really believe it would be best not to take them off until the buds begin to swell in spring.

I will now give directions for preparing the cloth. Take a yard or two of common calico, or white cotton cloth, and tear into strips about one inch wide. Wrap these, one at a time, around a small tin can, a mustard or yeast powder box is about the best size, lapping the end of the second strip a little under the first, and so on, and winding gradually from one end of the can to the other, until evenly covered with the cloth about an inch or more thick. Stick a pin in the end of the last strip to keep it from unwinding. Next place about a pound of beeswax (no tallow or rosin) into a vessel and melt entirely over a fire; after which drop the can of cloth into it and roll around for several minutes until well soaked, when it can be taken out to cool. Take out the pin, unwind and cut into about inch pieces and it is ready for use. In hot weather the budder sticks the cloth on, where it will remain until the tyer comes along, thus keeping out the hot air. In cool weather, however, it will not adhere, and the tyer must put it on before tying. Not one bud in a hundred thus put in will fail, even under the most unfavorable circumstances in summer, and 6-year-old peach trees budded this way last March here, now have large new heads and will have a good crop the coming season.

Now for another point that will benefit particularly the greenhouse man. We are much troubled in this limestone country with "chlorosis," or a yellowing of the leaves, particularly the peach and grape. Knowing that the iron hills of East Texas we entirely free from this, it occurred to me to apply about a pound of well pulverized sulphate of iron, common copperas, around several young grape vines and peach trees thus affected. To my surprise and pleasure, a good rain having fallen, in less than a week the terminal buds and leaves turned a dark green, and in a short time the whole plant was of a natural color. The curious thing of it was, that instead of the lower leaves changing first, as we would expect, they were the last to be affected, the green gradually extending from the bud downwards. Having a lady friend who has a large greenhouse, and quite a number of pot plants yellow, I advised her to sprinkle a teaspoonful of pulverized copperas on the surface and water it in. She did so with the same result that I had; all turned green and began to grow vigorously. Iron is evidently a tonic for plants as well as folks, and, no doubt, all plants, especially in pots, would be benefitted by moderate solutions. I believe that if several bushels of ashes and about ten pounds of copperas were top-dressed around a peach tree with the yellows, it would very probably cure it. I hope some of your readers will try it. By the barrel copperas is very cheap, about 2½ cents per pound.

H. M. STRINGFELLOW.

Lampasas, Texas, February 12, 1901.

Blair & Kaufman, proprietors of the Kansas City Nurseries, say: "We have been using catalpa for headboards in our nursery for a number of years, and they seem to last better than any kind of wood we can get. They are generally made from trees running from two to five inches thick."

In Nursery Rows.

NOTES ON PLUMS.—A Kansas Experiment Station bulletin says: The conclusion by the Kansas Experiment Station from their observation on the Japanese plum is that they rank with the peach in hardness. They head the list for table and market qualities. Their habit of early blooming makes the crop uncertain. Burbank is, perhaps, hardier than Abundance, and they are nearly equal in quality. Ogon is hardier than either, but not nearly so good in quality of fruit.

SEQUOIA GIGANTEA.—Inquiries often come to nurserymen for the mammoth tree, *Sequoia gigantea*, and as these requests are usually fruitless, it has led to the common belief that this beautiful tree is not hardy here, says Joseph Meehan, Germantown, Pa., in Florists' Exchange. This supposition is incorrect. At least, speaking for this vicinity, Eastern Pennsylvania, and also for Rochester, N. Y., it is perfectly hardy. The trouble has not been from lack of being able to stand the climate in winter, but a fungus attacks the lower branches of the tree, destroying them, and leaving but a tuft of green branches at the tops. At least, this has been our difficulty. Occasionally a tree would be exempt from it and would flourish, such as one, a notable exception, on the battle ground of Germantown. This rare and gigantic growing evergreen would be planted on all fair sized estates, were it known that it is but a question of spraying and not of hardness. It has the reputation of being rather difficult to transplant, but there have been so few attempts at cultivation on account of the difficulty of obtaining the trees, that there can be but little practical knowledge on the subject in the East. All the California nurseries keep this sequoia, and a few plants procured and grown in pots, so as to insure their transplanting in safety, would doubtless find a ready sale.

BUFFALO BERRY.—C. S. Harrison, Nebraska, says in the Orange Judd Farmer: This attractive shrub belongs to the olive family. It blossoms early, has a foliage of satiny silver and besides bears enormous crops of fruit fully equal to the currant. It is sometimes called the winter currant, as the berries often remain on the bushes until January. The shrubs are of two sexes, consequently should be planted in clumps or hedges, so that all the blossoms will be properly fertilized. They grow freely along the Missouri river, and are doing well in the valleys of such rivers as the Platte and Republican. They are often seen on the high bluffs. They flourish in the dry West and mature beyond the 100th meridian. Where the common currant fails because of lack of moisture they frequently succeed. The blossoms and fruit of this handsome plant make it very attractive. It is suitable for decorative purposes about the home, and as it is very thorny, it can be used for fences. I have seen it more than 12 feet high, growing in its wild state, but when cultivated it is usually only 6 to 8 feet high. When the fruit is wanted the plant should not be trimmed too severely. This is one of the shrubs that is frequently overlooked, in spite of the fact that it is much more valuable than many which have been introduced. I am preparing to test this plant on a large scale and I am gathering the seed from an island in the Platte river, where the shrubs grow wild.

J. Blaauw, Boskoop, Holland, sailed for New York on March 21st.

The California Cured Fruit Association, it is reported, has entered into a contract with a St. Louis advertising agency, by which, at an expenditure of \$100,000, the surplus prune stock of California is to be advertised throughout the country.

P. J. Berckmans, Sr., who has a summer home at Upper Montclair, N. J., is not a permanent resident there. He mostly spends the summer months in New Jersey, and is still a citizen of Augusta, Ga.

PRICE NOTHING COMPARED WITH VALUE.

MICHIGAN CENTRAL NURSERIES, C. A. MAXSON, MGR.—"Enclosed please find New York draft for \$1.00 in payment of our renewal for the coming year. It is a pleasure to us to make this remittance, and we say that in our opinion, no nurseryman or any one dealing in nursery stock, can afford to be without a monthly copy of your excellent journal. Indeed, we are frank to say that were the price considerably higher we should just as cheerfully renew our subscription, as the amount paid is practically nothing compared with the value received."

NEEDS OF FRUIT INDUSTRY.

G. F. Powell, New York, says in American Agriculturist:

The great bulk of our fruit is sold on the same old plan of 40 years ago, which would bankrupt any other trade or industry that carried on business in the same manner. Cereals and other foods are placed before consumers with a full description of their preparation, uses, value, etc., and their consumption has increased manyfold as a result.

This principle could be applied to the green, evaporated and canned fruit trade with great advantage. In shipping the choicest apples, like the Esopus Spitzenburg, for illustration, the grower or packer can paste on each package a printed description of the variety as follows: "This variety, the Spitzenburg, represents one of the best of all apples. Is rich in flavor, crisp and juicy, very fine for stewing, none better for baking or for pies and dumplings, while for dessert it ranks among the best. The free use of fruit aids digestion and promotes health."

CHASE NURSERY COMPANY.

In a general article upon Riverside, Cal., the Riverside Daily Press says:

One of the most potent factors in the growth and development of Riverside into the most famous orange growing district in the world is the Chase Nursery Company. The company is composed of E. A. Chase and his sons, Frank, F. H. B. and Martin Chase. Mr. Chase and his family came to Riverside about ten years ago, bringing with him a thorough knowledge of the nursery business, and immediately upon their arrival they established an extensive nursery at Riverside, with results that have been gratifying to themselves and to the valley.

The Chase Nursery Company does business on a large scale. They are independent of the general market, because they make their own market. Realizing the special value of foothill over valley lands for orange growing, the company has invested largely in lands that lie along the hills north and east of Highgrove, and southwest of Victoria hill, near Pachappa mountain. This land, consisting of several hundred acres, has furnished and is furnishing a market for many thousands of trees, all of which the company itself supplies. Last season there were sold to outside parties 60,000 navel orange trees, 25,000 going to the Trust company alone. This season the company will plant 60,000 trees on its own lands, and will have 40,000 to sell, most of which have already been contracted for. The price of these trees is one dollar each.

Lying just below the Hermosa tract are ninety acres of navels and thirty of Valencias, all of which have been planted and sold by the Chase Nursery Company. The average price received was \$450 per acre for what was sold immediately after planting. One year later most of this land was sold for \$700 an acre. The company has no more land for sale in this section at present.

The company has about 600 acres of land, almost half of which is in nursery stock. An industry of large proportions in which they are engaged, is the raising of rose bushes for the market. The company has five hot-houses in which the plants are grown after being taken from the seed beds. Six acres of land are required to mature the slips, which must have new land every two years. This necessity makes the raising of roses in Riverside, where land is so valuable, an expensive luxury. E. A. Chase is President of the Alabama Nursery Company of Huntsville, Alabama, to which most of the roses are shipped. The company will ship this season 200,000 slips or two carloads.

Among Growers and Dealers.

Prof. H. E. Van Deman is on the Pacific coast.

Luther Burbank has a promising novelty in his hybrid of the Eastern Beach plum, which is very prolific.

J. W. McNary, of McNary & Gaines, Xenia, O., is a member and secretary of the Dayton, O., Park Commission.

Richard Smith Carrington, Worcester, England, exporter of clematis, roses and manetti stocks, is dead, aged 76 years.

Herbert and Henry Chase will have charge of the St. Louis branch of the Alabama Nursery Company, Huntsville, Ala.

Elmer Reeves, Waverly, Ia., has sold 400 European larch trees planted 35 years ago, for telephone poles, at \$2 each.

Leonard Coates, Napa, Cal., argues in the Pacific Coast Fruit World in favor of the formation of a California Nurserymen's Association.

President Theodore J. Smith, of the American Association of Nurserymen, passed a portion of the winter in Porto Rico and Cuba.

Among those who will go to the Niagara Falls convention from Texas are Messrs. John Watson, Kerr, Kirkpatrick, Malley and Ramsey.

E. Albertson, Bridgeport, Ind., of the executive committee of the American Association of Nurserymen, visited Western New York nurserymen last month.

Nurserymen of California are having an unusually strong demand for apricot and peach trees, and the trade is active for cherry trees—California Fruit Grower.

James Clark, of Southern Illinois, writes: "Catalpa fence-posts have been taken up after being in the ground forty years and reset at being good for forty years more."

The Lake View Nursery Co., of Sheriden, N. Y., formerly conducted by Alfred F. DeLand and Frank M. Roesch, has dissolved partnership. Mr. DeLand has bought Mr. Roesch's interest, and will continue the business.

F. W. Proctor, of Massachusetts, describes in the Rural New Yorker an apple orchard planted by his father when the latter was 50 years old and says that his father lived to enjoy the fruit and to derive an income from it.

Reports from Texas state that up to March 15th planting has progressed slowly, the weather being very dry. The prospect is a shortage of peach and plum, with apples plentiful. Pears, as ever, will be exceedingly scarce.

The promise of the Pan-American Exposition managers is: "The exhibits of nursery stock, including orchard and ornamental trees, shrubs and evergreens, will be unquestionably among the finest, if not the finest, ever made."

Who is the first nurseryman in California who will make a specialty of "pedigreed trees?" Trees must be marked which annually bear the best fruit and are the most vigorous. Even a branch may show superiority. From such alone take buds.—Pacific Fruit World.

The dutiable imports of plants, shrubs and vines amounted to \$87,524 in December, 1900, against \$60,715 in the same month of the year before. During the twelve months of 1900 ending with December, these imports were valued at \$1,082,041, as compared with \$902,737 worth imported in a corresponding period of 1899.

Prof. C. S. Sargent, of the Arnold Arboretum and Botanical Gardens of Harvard University, says: "For fence-posts and telegraph posts, hop-poles, and vineyard-poles, the wood of the catalpa has no known equal. Catalpa wood seems particularly suited for the manufacture of coffins, for which purpose it promises to rival the famous nanmu wood of the Chinese."

A midwinter examination of peach buds in the orchards of Douglas township shows not only that the trees are abundantly budded, but that the buds are in healthy and vigorous condition. The rest of the winter holds but little danger in store, and there is no reason to doubt that the peach crop of 1901, quality of aereage considered, will be as large as any of its predecessors.—Detroit Free Press.

MR. ROUSE'S REPLY.

Called Forth By Statements By President L. T. Yeomans of the New York State Fruit Growers' Association Regarding Fumigation of Nursery Stock—Facts of Interest to Fruit Growers and Nurserymen.

In view of the fact that the Country Gentleman published in full the address of President L. T. Yeomans at the organization of the New York Fruit Growers Association refuting statements by Irving Rouse of Rochester, N. Y., on the subject of fumigation of nursery stock, Mr. Rouse has sent the following communication to that journal:

Editors Country Gentlemen:—Mr. L. T. Yeomans, the newly elected president of the Fruit-Growers' Association, is reported in your paper, p. 190, as practically stating that the Eastern Nurserymen's Association was formed to antagonize the fruit-growers. This is absurd. The Eastern Nurserymen's Association was organized 10 or 12 years before the San Jose war cloud made its appearance. Its object was to urge upon the United States government the necessity of placing a duty on foreign nursery stock, which at that time was coming to this country in large quantities and being sold at auction in all large seaboard cities. The effect was prejudicial generally to the nursery interests. The association contributed very largely to the bringing about the enactment of the present tariff on nursery stock. Since that time, the association has kept alive in the interests of the trade.

The association has never interfered with the fruit-growers—has never thought of doing so. Even now, when some fruit growers are openly fighting the nurserymen, the latter are simply asking for the privilege of conducting their business without interference by those who know nothing about it and care less.

Mr. Yeomans denies the accuracy of a statement made by me as follows: "As a matter of fact, to my knowledge there is not a single commercial nursery in the State of New York that is infested with scale, but there are any quantity of orchards that are infested." That is a broad statement—an uncomfortable statement of fact for the fruit-growers who are carrying on this crusade, and I am prepared to stand by it. I think I am more familiar with the condition of the nurseries of the state than is Mr. Yeomans. According to the report of the commissioner of agriculture, there were found in the state of New York this year but 6,000 trees infested with the scale, out of a total of 25,000,000. In the previous two years, about 200,000 were found infested. Is not this proof positive that the pest is being taken care of in the most careful manner? In the face of such a report, why should such legislation be proposed? Another year, if the present law is retained, will see the scale wiped out so far as the nurseries are concerned.

Mr. Yeomans is careful not to tell the whole story about the fifty nurseries infested. The fact is that 36 of them are on Long Island and near New York, and not one of them is a commercial nursery. The 36 of them together grow less than one half of one per cent. of the fruit trees grown in the state.

This significant statement was made last month before the house committee on agriculture: "There is no scale in the New York state nurseries, and we are confident we can control the situation, so far as the nurseries are concerned, with the present law?"

Mr. Yeomans says also that nurserymen fumigate stock going to Canada, but refuse to do so for home consumption. Not one dollar's worth of American stock was shipped into Canada during two years following the San Jose scale act. In 1900 we had a chance to ship for two weeks only. We are not required to fumigate. The Canadian government does the fumigating at the port of entry. As a result of persistent and unwise agitation of the scale scare, the entire Canadian trade in nursery stock has been lost. Our fruit growing friends will find their chickens coming home to roost in the not distant future if they insist on keeping their alarmist views so constantly before the public, both in agriculture and daily press. Even now Germany, Switzerland, Austria and other countries are inaugurating movements to keep American pest ridden fruits on this side of the Atlantic not because there is any real cause, but because some fruit growers seem to be doing their best to create an impression that there is.

Mr. Yeomans' legislative committee is made up of five gentlemen, who are also members of the legislative committee of the Western New York Society. As members of the latter committee they joined in an agreement made at the January meeting "to drop all legislative proceedings this year." It would interest many people to know by what process of reasoning they square their present position with that agreement.

Mr. Yeomans' statements in reference to the Western New York Horticultural Society are at variance with the facts. Last year Mr. W. C. Barry, the president, was criticised by nurserymen for allowing so much latitude in the discussion. The talk was really all on one side, the nurserymen practically having nothing to say, as is shown by the records. In view of the statements made, however, it might be well to remember that the Western New York Horticultural Society has from the first had nurserymen for presidents. It has been made what it is to-day by nurserymen's money and nurserymen's brains; and it therefore seems strange to think that nurserymen who are members are not to be allowed to raise their voices in defense of their own business, and in answer to attacks of those who will not or cannot appreciate existing conditions.

IRVING ROUSE.

JOHN WATSON'S CHANGE.

Regarding his resignation as business manager of the Rose-dale Nurseries, Benham, Tex., John Watson says:

"Owing to the condition of my health, which has never been robust, on account of fifteen years close confinement in the office here, I was obliged to resign, on February 15th, the position which I held for seven years, as business manager of the nurseries. Outside life, in a higher altitude, is necessary, I find; and I shall shortly move to some point in West Texas. I shall by no means give up my interest in matters pertaining to the nursery business; I am thinking of growing peach, plum, roses, and some specials for the wholesale trade, if I find a suitable location."

Recent Publications.

Recent publications—"Notes on Spraying Peaches," Maryland Experiment Station; "Important Insecticides: Directions for Preparation and Use," "Our Foreign Trade," Exp. Sta. Record, Vol. XII. No. 6, U S Dept. Agriculture; Journal Columbus, O., Hort. Society; especially attractive catalogues of T. S. Hubbard Co., Fredonia, N. Y.; Ellwanger & Barry, Rochester, N. Y.; Frederick W. Kelsey, New York city.

A Useful Guide to Making the Home Grounds More Attractive is the title of what is really a catalogue of the many good things in the nurseries of Thomas Meehan & Sons, Germantown Pa., but which appears on account of its unusual and attractive covers to be a brochure upon a special subject not so comprehensive. A liberal use of half-tone engravings, accurate, condensed original and honest, adds much to the interest created by this handy list of the best that is grown in fruit and ornamental stock.

Little, Brown & Co.'s spring list includes "Sir Christopher," by Maud Wilder Goodwin; "Ballantyne," a strong novel by Helen Campbell; Richard Le Gallienne's new romance, "The Love Letters of the King, or The Life Romantic;" "A Daughter of New France," by Mary Catherine Crowley; a unique problem story by Ellis Meredith. "Truth Dexter," by Sidney McCall; "Portia, a Story of the Seventies," a powerful story of a North Carolina town by a new writer, Anna Bowman Dodd's new book, "The American Husband in Paris;"

new editions of Mrs. Fawcett's "Life of Queen Victoria," and of Prof. Benjamin W. Wells's "Modern German Literature;" and a limited edition of "In and Around the Grand Canyon," by Prof. George Wharton James.

It is probable that no great Exposition has been so beautifully illustrated in its advertising matter as has the Pan-American. The latest production is a dainty booklet of 16 pages in green cover bearing a miniature reproduction of the famous poster "The Spirit of Niagara." Many of the features of the Exposition are depicted and catalogued. The last page shows a ground plan of the Exposition, whereon the location of different buildings is indicated. The railroads will make low rates from all parts of the country during the Exposition, which opens May 1 and continues six months, and the people of Buffalo are preparing to entertain comfortably the millions who will attend. Anyone desiring a copy of this booklet may have it free by addressing the Pan-American Bureau of Publicity.

The latest volume in the Rural Science series edited by Prof. L. H. Bailey is "The Principles of Vegetable Gardening" by Prof. Bailey. This is another of the distinctly practical books upon subjects connected with agriculture and horticulture for which Prof. Bailey is noted. Anything from his pen may be accepted at once as the result of actual experience coupled with scientific investigation and thoroughly up to date. This book is divided into two parts: General view and vegetable gardening crops, and comprises twenty chapters and an index. It discusses the lay-out of the plantation, the making of frames and hotbeds, treatment of the soil, tools, seeds, books upon the subject, root crops, cucurbitous crops, perennial crops, etc. In general and in detail the subject is treated from the view point of the practical vegetable gardener and furnishes to him exactly the information wanted. Cloth, pp. 458. \$1.25. New York: THE MACMILLAN CO. ROCHESTER: SCRANTON, WETMORE & CO.

Long and Short.

Seedlings for fall of 1901, apple, pear and forest trees, may be had of the Titus Nursery, Nemaha, Neb.

Apple seedlings are offered by Hawkeye Nurseries, Stratford, Ia., in exchange for cherry trees and ornamentals.

Hammond's Slug Shot destroys pests which prey upon vegetation. It may be had of B. Hammond, Fishkill-on-Hudson, N. Y.

Fruit Stocks, Mahaleb and Mazzard Cherry, Pear, Myrobalan and Mariana Plum, at Thomas Neehan & Sons', Germantown, Pa.

The Andre Leroy Nurseries, of Angers, France, through their sole agent Andre L. Causse, 105 Hudson St., New York city, are taking orders for nursery stocks for delivery next fall, at favorable prices.

Trees, fruit and ornamental, in all varieties and of the highest grade may be had at all times of the well known nursery firm Ellwanger & Barry, established over 60 years. Shade trees, hardy roses, hardy plants, climbers, etc.

The copartnership known as Elm City Nursery Co., C. P. Lines and Ernest F. Coe, proprietors, has been incorporated and will be known in the future as the Elm City Nursery Co.; capital \$15,000, paid in. President and treasurer, Ernest F. Coe; secretary and manager, H. E. Turner.

ASPARAGUS *Fine, two year.*

Worden-Seckel Standard Pears, first class, $\frac{3}{4}$ and up. Sweet Apples, first-class, $\frac{3}{4}$ and up, summer and winter varieties. Crab Apples, first-class, $\frac{3}{4}$ and up, Martha and Transcendent. Wickson Plums, all grades. English Hawthorne, Scarlet and White. Clematis Paniculata, Heavy Plants. An entire unbroken block of 2-year apple. Grown at Geneva, N. Y.

WHITING NURSERY CO. BOSTON, MASS.

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Baltimore and Richmond Nurseries,
BALTIMORE, MD.
FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

Strawberries,
Nut Trees,
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Roses,
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General Supplies,
&c., &c.,
&c.

**"SALZER'S SEEDS
WILL MAKE YOU RICH"**
This is a daring statement, but Salzer's seeds bear it out every time.

Combination Corn.
Greatest corn on earth. Will positively revolutionize corn growing.

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Greatest marvel of the age; 12 tons of hay per acre. First crop six weeks after sowing.

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Catalogue tells.

FOR 10c. STAMPS
and this NOTICE we mail a big seed catalog, 10 Grain Samples including above, also Speltz (80 bu. per A.) Oats, (250 bushel per A.) Rye, Barley, (173 bu. per A.) Pennant, etc. Worth \$10. to get a start.

John A. Salzer Seed Co. La Crosse, Wis.

MOUNT ARBOR NURSERIES

E. S. WELCH
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SHENANDOAH, IOWA

Call

Special
Attention

to the following

SURPLUS

For Spring of 1901

Apple. All grades. Large assortment of varieties.
Cherry. Two year. Best varieties, fine stock.
Plum on Plum. Americana and European.
Plum on Peach. Chickasaw and Japanese.
Plum. Miner, on own roots
Pear. Duchess Dwarf.
Apricots. Russian varieties.

**GRAPE VINES, GOOSEBERRIES,
CURRANTS, BLACKBERRIES, &c.**

Shade and Ornamental Trees. Ash, Box Elder, Catalpa Speciosa, Elm, Linden, Silver Maple, Weir's C. L. Maple, Carolina Poplar.

Shrubs. Althea, Purple Leaved Berberry, White Tart. Honeysuckle, Hydrangea, Purple Lilac, Persian Lilac, Yucca, California Privet, Snowballs, Spirea Van Houte, Spirea Billardi.

Vines. Ampelopsis Quinefolia, American Purple Wistaria, Large Flowering Clematis.

Climbing Roses. On own roots. Seven Sisters and other leading varieties.

Hybrid Perpetual and Moss Roses. General assortment.

Forest Tree Seedlings. Ash, Box Elder, Catalpa Speciosa, Elm, Black Locust, Silver Leaved Maple, Russian Mulberry, Osage Orange.

Fruit Tree Stocks. Apple Seedlings, Mazzard Cherry, Myrabolan, French Pear.

In addition we have one of the most COMPLETE LINES OF GENERAL NURSERY STOCK west of the Mississippi. Write for Spring Trade List

Special Attention Given Assorted Orders

SPRING BARGAINS

**75 VARIETIES OF
STRAWBERRIES 75**

New and old kinds. Prices Reasonable

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15000 Cumberland	5000 Golden Queen
40000 Kansas	10000 Marlborough
5000 Palmer	2000 London
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5000 Conrath	3000 King
2000 Gault	10000 Shaffers Col.
20000 Cuthbert	20000 Miller

BLACKBERRIES

2000 Crystal White	20000 Eldorado
15000 Early Harvest	10000 Kittatinny
10000 Erie	5000 Lawton
3000 Maxwell	5000 Minnewaski
3000 Early King	5000 Rathburn
5000 Ohmer	10000 Stone's Hardy
20000 Snyder	5000 Taylor
10000 Wilson Jr.	5000 Agawam
2000 Iceberg	3000 Lawton
5000 Wauchussetts	5000 Lucretia Dewberry

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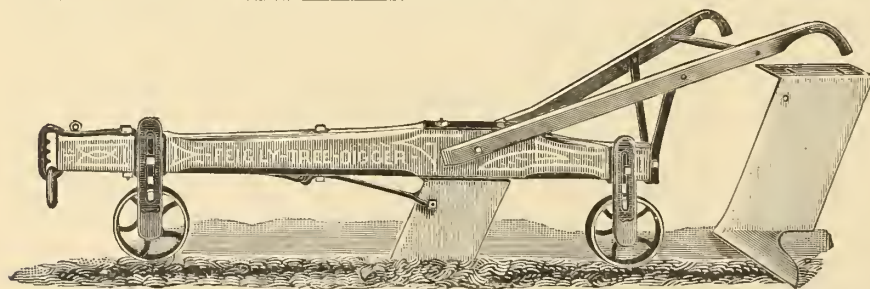
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THE FEIGLY TREE DIGGER

Manufacturer and Sole Agent,

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CHEAPEST AND BEST. SEND FOR CIRCULAR.



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Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

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**SOUTH TOWERS MACHINERY AND TRANSPORTATION BUILDING.
PAN-AMERICAN-EXPOSITION CO.**

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"The nurseryman's responsibility should end when he has delivered the stock in first-class condition"—PROF. N. E. HANSEN.

VOL. IX.

ROCHESTER, N. Y., MAY, 1901.

No. 5.

TEXAS NURSERYMEN.

**Programme for the Convention at College Station, Texas, in July—
Affiliation with Texas Farmers' Congress—Practical Topics
to be Discussed by Men Especially Qualified—An
Interesting Meeting for the Nurserymen of
Texas and Adjoining States.**

On February 12th, last, the executive committee of the Texas Nurserymen's Association met in the parlors of the Worth Hotel, Fort Worth, Texas. The committee deemed it desirable for this association to affiliate with the Texas Farmers' Congress, and elected E. W. Kirkpatrick as vice-president of the Texas Nurserymen's Association to the Texas Farmers' Congress, and member of the executive committee of that body. This proposition was accepted by the executive committee of the Texas Farmers' Congress then in session in Fort Worth, all subject to the approval of both bodies at the coming regular meetings of the same.

The executive committee of the Texas Nurserymen's Association appointed the next meeting of this association to be held at College Station, Texas, on July 23 to 26 inclusive, 1901, and adopted the following programme to be carried out in connection with any other business or exercises for the good of the association that may arise at this meeting:

"Introduction of New and Improved Varieties, What and How"—Stanley Watson, Brenham; and O. K. Phillips, Rockdale, Tex.

"Propagation, the Best Methods"—John F. Sneed, Tylor, Tex.

"Adaptation of Varieties to Locations"—B. L. Adams, Bonham, Tex.

"The Evolution of the Plum"—F. T. Ramsey, Austin; and J. B. Baker, Ft. Worth, Tex.

"The Best Fruits for the Coast Belt"—R. H. Bushway, Alvin; and R. W. Holbert, Arcadia, Tex.

"The Transportation Problem, as Applied to Nursery Stock"—John Watson, Brenham, Tex.; and J. Bagby, New Haven, Mo.

"Our Insect and Fungoid Friends and Foes, and How to Adjust Them"—Prof. F. W. Mally, College Station.

"How Best to Reach our Retail Customers"—A. K. Clingman, Homer, Ia.; and N. T. Pirtle, Tylor, Tex.

"Louisiana as a Fruit Country"—E. Mixer, Richards, La.; and Yarbrough Bros., Stephens, Ark.

"Apple and Pear Trees, Best Manner of Propagation"—L. W. Clark, Paris; and J. E. Harman, Brenham, Tex.

"The Necessity for and Best Methods of Grading Nursery Stock"—W. F. Heikes, Huntsville, Ala.

"For a Higher Standard of Agency Trade"—George P. Murrell, Austin, Ark.; and C. C. Mayhew, Sherman, Tex.

"Prices, Retail and Wholesale, and Their Proper Adjustment"—E. W. Kirkpatrick, McKinney, Tex.

The papers and discussions, it is expected, will be brief, pointed, and well boiled down; also, that each member come prepared to make known his surplus and wants. The executive committee of the association is composed of E. W. Kirkpatrick, president; J. B. Baker; and John S. Kerr, secretary.

VICTORIA MEDAL OF HONOR.

At the time of the establishment of the Victoria Medal of Honor in Horticulture we published a list of the sixty persons who were deemed worthy of the medal by reason of their prominence in horticultural matters. "In connection with this honor a new departure has now been made," says the Gardeners' Magazine, London. "The Victoria Medal of Honor in Horticulture was established by the Royal Horticultural Society in 1897, with the assent of her Most Gracious Majesty the late Queen Victoria in commemoration of the Golden Jubilee of her reign, and the limit of sixty Victoria Medallists at any one time was fixed to record that event. It has now seemed good to the president and council to issue a minute and order of council that the number of Victoria Medallists shall be increased to sixty-three as a record for all years to come of the sixty-three years of her late Majesty's glorious reign, and that such number should never hereafter be added to or decreased. There having been one vacancy in the original number at the time of her Majesty's death, the president and council, acting on the above minute and order, have made the following appointments to the list of Victoria Medallists, viz.: Miss Eleanor A. Ormerod, LL. D., etc.; Sir George King, K. C. E. I., M. B., F. R. H. S., F. L. S., etc.; Mr. George Norman, F. R. H. S.; and Mr. James Sweet, F. R. H. S. Miss Ormerod's life has been devoted to natural history, and it is very largely due to her that we now possess so wide a knowledge of those insects injurious to garden and farm crops, and are able to prevent their attacks or provide a remedy when the attack has been made. Sir George King is a renowned botanist, and one who has rendered great public service in connection with cinchona cultivation in India. Sir George was for a long time director of the Royal Botanic Gardens, Calcutta, and only recently completed his term of service. Mr. George Norman, head gardener to the Marquis of Salisbury, Hatfield House, Herts, is a successful fruit grower, and has for many years had a seat on the R. H. S. fruit committee. Mr. James Sweet, of Finchley, is well known among market growers as the father of the grape growing industry in England."

NURSERY STOCK IN MANITOBA.

In his report to the federal department in Washington, U. S. Consul W. H. H. Graham, at Winnipeg, Manitoba, referring to the open dates for admission of nursery stock to Canada, says:

There is a large and growing demand for nursery stock in Manitoba and the Northwest Territories, and the supply, notwithstanding the tariff, should come from the United States, as trees and shrubs propagated in the Northwestern States are better adapted to this climate than those produced elsewhere.

The Storrs and Harrison Co., Painesville, O., shipped 193 carloads of stock between March 1st and April 11th.

PRICES SHOULD BE BETTER.

Good Business Reported in the Central Atlantic States—Tendency is Noted Among Nurserymen to Yield in Price—Belief That There Should be Uniformity in Ideas to Prevent Price Cutting—Secret of Maintaining Prices for Stock.

WEST CHESTER, Pa., April 12.—Hoopes, Bro., & Thomas: "We are still just in the midst of our spring business, the season being cool and very favorable, and from prospects trade will be larger than usual.

"We notice a great tendency among many nurserymen to yield, we think unnecessarily, in price both in fruit and ornamental stock, as we feel confident that when the season is over, there will be scarcely any surplus.

"We think that prices in the future should be better than in the past, but unless there is some uniformity in the ideas of the trade, there will still be a decided cutting from the figures as sent out in their lists."

BRIDGEVILLE, DEL., April 15.—Myer & Son: "It is very gratifying to us to be able to report such good spring business. We are entirely out of many items at this time, and are compelled to return orders unfilled which we had not accepted. At this time, we have not 1,000 one-year-old peach on hand, and very few June buds of the leading sorts; apples and pears about cleaned up, and many varieties of strawberries sold out.

"Prices have been entirely satisfactory, and we have had no trouble in holding them strictly to our printed quotations. Collections are much better than usual, and we see no reason why the prices on all nursery stock cannot be held up to a paying business to the nurserymen from now on, if all will make their prices and hold to them, and grow no more stock than they can sell at a fair price. Better burn the surplus than dump it on the market at a cut price below the cost of production, which ruins trade with the same customers for years to come, for when once you sell a man the same article at a low price, he expects the same thereafter, and in many cases you lose the customer if you do not do it. Now the public, in general, knows stock is much higher than a few years back, and there should be no trouble to keep it so, if we nurserymen do our part towards that end. The secret is to destroy what can not be sold at a fair price; but one nurseryman will not destroy stock and let his neighbor sell his by underselling him.

"We have maintained a uniform price to the planters in Delaware and Maryland for the last eight years on peach stock, but considerable has been sent in and sold to large planters at the wholesale and dealers' prices, and that at the very lowest. Owing to the reputation of our stock, to make these sales very tempting prices had to be given. But, being able to sell what we grow, we do not attempt to meet these cut prices, as we are often asked to do.

"About the only surplus we have now on hand is Maxwell blackberry and Sample strawberry. While we have yet a fair stock of strawberry plants, they will be pretty well cleaned up by the last of the month. We find Kieffer pear not near as much in demand as last season, especially in this locality, and there is going to be an over-production of this stock in the next year or two, which can be consumed only by fire."

BATAVIA, N. Y., April 18.—Nelson Bogue: "Spring sales very satisfactory. No surplus left of any kind of fruits. Shall make the usual plantings."

PROPOSED CHANGE IN NEW YORK LAW.

Senator Ambler introduced in the New York legislature an amendment to the agricultural law relative to San Jose scale and the transportation of nursery stock. The bill passed both houses and went to the governor. The following is inserted in Section 83:

"All transportation companies within this state receiving or carrying nursery stock from any point without the state to any point within the state, shall immediately upon receiving such consignments notify the commissioner of agriculture of the fact that such consignment is in their possession, giving the name of the consignor and consignee and the point of destination of such consignment."

The following it is proposed to cut out of the law:

"A certificate issued by an official of the United States, setting forth the fact that the nursery stock is free from any and all such disease or diseases, pest or pests, shall be accepted in lieu of state inspection."

The amendment is not objected to by the nurserymen.

A FORTUNE MAKING PLANT.

In view of the report that some nurserymen are entering upon the growing of ginseng, the following from the Gardeners' Magazine, London, Eng., is of interest:

The fiat has gone forth—grow Ginseng, and the inducement held out is that "a fortune may be made by growing the new root Ginseng. Commands twenty shillings per pound, an acre produces two thousand pounds worth." Who will not grow this root for a season or two, make a fortune and retire? The term "new root" is delightful, seeing the plant was introduced from North America in 1740. It is known as *Panax quinquefolium*, or more properly *Aralia quinquefolia*, a hardy herbaceous subject growing to a height of a foot or so. Rhind describes it as having "a round purple stalk about a foot high. The leaves arise with the flower stems from a thick joint at the extremity of the stalk. They are generally three, but sometimes more, each dividing into five simple leaves, which are of an irregular, oval shape, with serrated edges, smooth and pointed, and of a deep green color. The flowers are produced in a round terminal umbel, and are of a whitish color; they appear in June." That the Chinese ascribed wonderful virtues to this plant is certain. It was their specific for all disorders of the lungs or of the stomach, curing asthma, strengthening the eyesight, renewing a wornout constitution, delaying the approach of old age, and acting as a counter poison. One traveller states that he never looked into the apothecaries shops in China but they were always selling ginseng; that both poor people and those of the highest rank made use of it, and that they boil half an ounce in their tea or soup every morning as a remedy for consumption and other diseases. But the European experience of the drug has by no means borne out these assertions. It is seldom or never now employed, and when used it does not seem to produce any active effects.

FORTY-SIX THOUSAND VISITORS.

Kew Gardens were visited during the Easter holidays by large crowds of people, and it was estimated that not less than forty-six thousand persons entered the establishment on Easter Monday, says the Gardeners' Magazine. The chief attractions in the open were the yellow crocuses near the Wood Museum and under the Turkey Oak along the Broad Walk, the green turf being for the nonce turned into a veritable Field of the Cloth of Gold; the chionodoxas and scillas under the shrubs, in many parts of the garden gave sheets of blue brighter even than the unusually kind Easter sky, while daffodils were showing color freely, and appearing to apologize for their lateness.

IN THE CENTRAL STATES.

*"Spring Trade Unusually Heavy, Sold Closer Than Ever on All Lines" — "The Best Trade Here for Twenty Years" —
 "Planters Have Money and Are Buying Heavily" —
 "All We Can Do and More, Too to Fill Orders; Were Never Harder Pushed."*

PAINESVILLE, O., April 12.—The Storrs & Harrison Co.: "We have all we can do and more too, to fill our orders, and guess we are going to be sold out all right on about all kinds of stock. Were never harder pushed."

PHONETON, O., April 17.—N. H. Albaugh, President Albaugh Nursery and Orchard Co.: "The best trade here for twenty years. Peaches all gone; also cherries, down to small sizes, in two years; Kieffer pears 'slumped' though."

"Apples will be scarce for fall; also cherries. Peaches and plums, usual supply. Fall orders already coming in. Raspberries and blackberries very scarce. The fall trade cannot help being good. Planters have money, and are buying heavily."

VINCENNES, IND., April 16.—W. C. Reed: "Spring trade has been unusually heavy, and we are sold closer than ever before on all lines of stock. Have finished all my planting, except strawberries. Made somewhat larger plant than usual this spring—260,000 apple, 50,000 pear, 50,000 cherry; other stock in proportion."

"Budded stock is showing up fine. Will have a large stock of apple (two and three year) and cherry (one and two year) for fall. I think planting generally, in this section, is about normal."

VINCENNES, IND., April 13.—H. M. Simpson & Sons: "Our spring sales have been very satisfactory; more than double the amount sold last spring. The heaviest call was for cherry and peach. Apple went very well, and we are about cleaned out on everything. We sold the larger part of our one year cherry and will have but a few for two year trees. Apple will be plentiful next year in this part of the state, but cherry and peach will be scarce."

"Spring has been very backward, with considerable rain, and we have been unable to plant any until this week. The outlook for fall trade is very bright."

SPAULDING, ILL., April 13.—Spaulding Nursery & Orchard Co., Irving Spaulding, Secretary: "Spring sales have brought better prices both in wholesale and retail departments. We find a heavier demand for ornamentals. Collections good so far. We think the price of apple will be about the same this coming season; also cherry. Peach higher, if anything."

"We hear of fine reports over the country of fruit prospects. Good fruit crops will, of course, materially stimulate our business."

BRIDGEPORT, IND., April 17.—Albertson & Hobbs: "This is our fifth week of steady packing, but the last of this week will finish up the heaviest part of it, though trade will doubtless continue as long as weather will admit of the handling of trees."

"Business has been very good this season, and while there is still some surplus stock left on hand, it is mostly of odd varieties, and pears and plums which seem to be long on the market generally; but apples, cherries, and peach have been sold very close."

"In volume, our business this year is nearly double what it has ever been before, and we think that is the case of other nurserymen throughout the state as far as we have heard, and the supply of stock holds out."

"Prices also have been very satisfactory on all lines of stock, excepting pears and plums, which have been too low."

"Collections are coming in very well considering the shipping season is not over yet, and we think prospects for prices are good for the coming year. We do not expect to see much lower prices made on anything, unless apples go off a little, but do not think they will go off much. Hope to see prices on pears and plums advance."

"Think the planting this season has been much the same as last, though our own planting, especially of apple, will be much lighter than last year; in fact, not more than half as heavy."

"We have coming on for next year as large a supply of stock as we have ever had; and, everything having come through the winter apparently in good condition, we anticipate a nice lot of stock."

XENIA, O., April 19.—McNary & Gaines: "This being our first spring's business here, we cannot compare with former years, but it is quite satisfactory, and we have sold closely on all lines of stock. It is evident, however, that the demand for stock this spring has been greatly reduced by conditions wholly outside of the business, namely, the prevalence of the grippe throughout the country. Notwithstanding this fact, the reduced demand has been quite sufficient to use up all available stock, and we can only conjecture what might have been had the retail sales throughout the country been normal."

"All this indicates a healthy condition of the nursery business, which now certainly promises well. The stock has wintered well, indications favorable for good fruit crop, wheat promising well, while the prevailing business condition throughout the country—agricultural, mercantile, and manufacturing—all seem favorable."

"Agents and dealers seem to be getting some of their old time enthusiasm, and every indication points to a good summer's trade with consequent heavy demand in the fall."

TROY, O., April 17.—George Peters & Co.: "Notwithstanding the slow approach of spring and scarcity of help, we are now about through with our shipments and have turned our attention to planting."

"The past year's business has been fully up to our expectations and more. By this we mean it has eclipsed all former records, and the outlook for the coming season looks equally as flattering. Have but little unsold stock on hand. Collections are good, and in, short, everything seems encouraging."

IMPORTATION OF NURSERY STOCK.

The importation of nursery stock is not as large as heretofore, judging from the replies received from our nursery correspondents, says the Florists' Exchange. While this is true of their own experience, the agents of the foreign houses who reside in our seaport cities tell us that many of the European nursery firms are almost cleaned out of stock by demands from this side. They say that in both fruit stocks and ornamentals, an exceedingly large business has been done.

Henry Klehm, Arlington Heights, Ill., has, for the fourth time, been elected a trustee of the village.

THE GENESEE VALLEY.

Wholesale Demand Large and Prices Generally Good—Apple Growers Inquiring for More Trees—Retail Sales for Spring Considerably Ahead of Last Year—Sharp Demand for First-Class Trees—In Dansville and Rochester.

ROCHESTER, N. Y., April 15—Brown Brothers Co: "The nursery business at the present time seems to be in very satisfactory condition. The wholesale demand has been large and prices generally good. We believe we may look for an improvement in prices on plum and pear the coming year, and we believe cherries will hold their own and possibly make advances. So much money has been made on the apple crop the past year that it is being already felt in the demand for apple trees, so that we think apple trees will be good property again next year.

"Our retail sales for spring are considerably ahead of last year. The prospects for the next few years appear to be excellent."

DANSVILLE, N. Y., April 13—Morey & Son: "The weather thus far has made it almost impossible to handle trees. The general shipping this spring is about as usual. Every first-class tree in Dansville will be sold at fair prices. The plant will be about the same as last year. We all anticipate a good season's business."

DANSVILLE, N. Y., April 15—James M. Kennedy: "Wholesale shipments from this point were unusually small this spring owing to the fact that about all the stock here was shipped last fall. All the wholesale shippers have completed their spring shipments at good prices. Very little if any surplus stock will be carried over. Some kinds of stock were so scarce that one year stock was used to fill the orders in place of two year stock, which indicates that good prices will prevail another year.

"The retailers have commenced billing out. The retail and catalogue trade have more than doubled that of last spring. I consider the outlook in the nursery business is continuing to grow better from year to year. I think this is largely due to the fact that over production has ceased and that we will be rid of it for a few years at least. Nursery stock has never wintered better; not one tree injured by the winter. Collections have been very good up to this writing. Nurserymen commenced planting this week."

ROCHESTER, N. Y., April 19—Irving Rouse: "Our sales this spring are not as large as usual for the reason we did not have the stock to sell, having sold out cleaner last fall than for the last 15 years.

"There has been a manifest disposition to curtail planting this spring as compared with last year.

"With the exception of apple, there is no more stock coming into the market, here in the East, than there was the past year. Old blocks have almost entirely been cleaned up, and present prices should be improved upon for next season's product; taken altogether the outlook is very bright.

The Toledo Times says the Henry Phillips Seed and Implement Company has received notice from Washington to the effect that the concern has been awarded a contract, amounting to \$90,005.90 to furnish "one-half of the entire lot of seeds sent out free by the United States Department of Agriculture for the year 1902."

ACROSS THE BORDER.

Sale of Apple and Cherry Fell off Slightly, but More Ornamentals Were Sold and Sale of Small Fruits Increased Materially—Frost Early out of the Ground and Business Progressed Favorably—Fall Business Promising.

TORONTO, ONT., April 11.—Stone & Wellington: "We have pleasure in saying that sales are in every way up to the mark. Not quite as much apple stock sold, in proportion, as other years, owing no doubt to the raise in prices.

"The same may be said regarding cherries, as far as our sales go. We thought we would have a shortage in sour cherries, but we have a surplus of the leading kinds.

"There are more ornamentals sold, however, and the sale of small fruits has increased very materially over the past few years.

"At our nurseries, frost has been out of the ground for two weeks, and already we have made our British Columbia and Northwest shipments, and have most of the stock dug for our regular packing. The weather is splendid for our business; frost being out, and keeping cool, enables us to handle stock in splendid condition. We look forward to being able to place our trees in the hands of customers in perfect condition this season.

"Fall business is opening up well, and we see no reason why the nursery business should not be fairly prosperous the coming year."

DISTRIBUTION OF YOUNG TREES.

Regarding the proposition to distribute young trees under the direction of the United States Department of Agriculture at Washington, Joseph Meehan says in the Florists' Exchange:

To most every one the thought will arise, what has the government to do with distributing trees, seeds or other articles of commerce? And this thought is in the main correct. But putting this feature aside, my own opinion is that such distribution will do no injury to the nursery trade; rather the reverse, and that it will be a benefit to many of those who receive the trees. The distribution of these trees will place in the hands of many something which they never would have purchased; it will show them what kinds of trees are suited to their locality; it will interest them in something which they would have known nothing about, and in the end these recipients of trees will become good customers of the nurserymen—a something which never would have happened otherwise. That this is no fancy picture is proved by the work of the tree agent. The agent visits farmers and country folk, as well as the rich merchant, and prevails on them to buy trees. The greater number would never have had trees in any other way. With the little experience with the agent, whether it be good or bad, there is awakened an interest in trees; and in the end the nearest nursery gets a new customer. Several of the largest nursery firms in the country do not employ agents, and in their vicinity agents from other firms are busy, yet these firms invariably say that they have no objection whatever to the agents—in fact look on their presence favorably. This work approaches that accomplished by horticultural and fruit growers' societies, viz., the education of the people in matters relating to trees, showing them what they are and giving them the opportunity of deciding intelligently what kinds are adapted to their needs.

The decision of Secretary Wilson is more in keeping with the original design of the promoters of the Department, and from what is known of the proposed work now, there appears no reason whatever to raise any objection to it if kept within its proper limits.

TRANS-MISSISSIPPI.

Spring Sales Satisfactory—Number One Apple Trees Sold at Highest Prices in Years—Plant in Apple Graft Reduced—Shortage of Peach—Nurseries Cleaning Up Close—Collections Reported Good—Season was Backward.

NORTH TOPEKA, KANS., April 13—Peters & Skinner: "With us trade has been brisk in the demand for peach and apple, in fact, business in all lines of stock was good, excepting in plum and apricot, these are moving slowly. There seems to be a shortage of peach in the West, not enough to supply the demand. Nurseries here will clean up closer than they have for a number of years past. From present indications we look for good collections."

TOPEKA, KAN., April 12—F. W. Watson & Co.: "Spring sales have been very satisfactory. There has been a shortage in two year cherry and No. 1 peach—not enough to supply the demand. No. 1 apple trees have sold at highest prices in years, and no surplus to burn. There is a small surplus of the lighter grades of apple. Apricot slow sale. Plums, excepting the natives, surplus with low prices. Collections are good. The plant in apple grafts this spring, we believe, will not exceed 70 per cent. of last year's plant. More pear seed will be planted this spring than usual—especially Japan seed. About the usual amount of apple seed. One year cherry blocks have been dug close, which will cut the number of two year trees materially for next fall's trade."

OTTAWA, KAN., April 13—A. Willis: "The spring has been late and has been unfavorable for work almost beyond precedent as we have had in March considerable freeze-ups that checked work early and since the freeze-ups have ceased we have been delayed by snow and rain. Last week we only made about three days' work, and this week we have had rain so as to make it exceedingly unfavorable for work. Last week on Monday we had at night about eight inches of snow on the ground besides what had melted. I think perhaps there was a fall of about a foot of snow and then when that went off, the ground was in a very bad fix to get around and pack trees. After that we had a big rain that lasted all day Friday and the worst thing about it all is we can't plant."

"But we have had a good trade and have got along, when all the difficulties are considered, well; and while we have not yet received from collections what will enable us to judge to any extent what we will get, we hope for the best and we will say, as far as we can now, the amount of our trade for last fall and spring is about 15 per cent. more than for any year before."

"The outlook at this time for trade for the year to come is, we think, a good average; and as for planting, this is the first storm I ever saw that did not clear up. If we may judge from that, I think we will have the ground in time fit to plant and all will be well."

LOUISIANA, Mo., April 12,—Stark Brothers Nurseries and Orchards Co.: "We report the largest and most satisfactory season's business in the history of our establishment."

"Growing stock, also spring planting here and in our other nurseries, is in a favorable and promising condition."

SHENANDOAH, IA., April 12.—D. S. Lake: "We have enjoyed a good spring business so far, but we are not through as yet; I think, however, the spring trade will be good."

"There has been a weakening of prices and rather more surplus stock showing up than I supposed there would be; but on the whole, I look for a very satisfactory spring business, with fairly good prices and collections."

GENEVA, NEB., April 18—Youngers & Co.: "Trade has been exceptionally good, much better than last year. Prices have been somewhat higher on most lines of goods and collections are exceptionally prompt. The demand has been largely for the better grades of goods. There is quite a shortage in the West on cherries and Americana plums. There will be some surplus of European plums and the lighter grades of apples. Nearly all other lines of stock will be practically closed out in the West."

"The shortage on cherries has caused many western nurserymen to draw quite heavily on their one-year blocks, which will materially reduce the stock of cherries for next season. On the whole we regard the outlook for prices in the future very encouraging, at least for the next year."

"The demand for grafts and propagating stocks would indicate a rather heavier plant than usual. Conditions during the fall and winter have been very favorable. Young stock has come through in splendid condition, and with the abundance of moisture all over the West, we look for a good stand and a good growth the coming season."

SHENANDOAH, IA., April 19.—E. S. Welch: "We are through with the heaviest part of our spring business, but have a good many orders to fill yet. Are receiving lots of rush orders, which keeps us quite busy with our planting and other work in addition. Prices have held up well, and collections up to the present time have been as good as we could expect. I think that collections for the entire season will average better than for several years."

"The volume of business with us this year will exceed that of any former year. Cherry and native plum have been in the strongest demand of any staple lines. We will clean up very closely, taking into account the quantity and assortment of stock that we carry. Our heaviest surplus of stock will be of pear and small grades of apple."

"Another very pleasant feature is that stock on the whole has given excellent satisfaction, customers, as a rule, being well pleased. We will increase our planting some, except on apple, of which we are not planting quite as heavy as we did last year."

"We have had muddy, disagreeable weather for working, but it has been favorable for the handling of stock."

SCALE EASILY CONTROLLED.

Deveraux Emmett, St. James, Long Island, writing to American Gardening, says:

Although I have more or less "scale" through my fruit trees and my big willow trees around my place are full of it, I have no difficulty in keeping it in check at small expense. I wash all my trees with strong whale suds up as far as we can reach about April 1. Also spray with weak whale oil solution (10 lbs. soap to 40 gallons water) once early in April and once about July 6, when scale is breeding. In autumn, if any trees show much scale, wash again and also spray. This whole work only takes a day or so in a year. It amuses me to hear of the wholesale slaughter of affected trees in Ohio and elsewhere when it is easy to fight the scale. It will spread back into the replanted orchards from shade trees, and birds carry it on their feet. I use an ordinary Gould spraying pump with nozzle.

LIVELY IN THE SOUTH.

Unusually Heavy Demand for Peaches—Two Million Peach Trees Planted in Commercial Orchards in Georgia this Season—Many Inquiries for Next Season's Trade—Prices Inadequate—Spraying and Thinning Successfully Practiced.

AUGUSTA, GA., April 15.—P. J. Berckmans Company: "In this section, the demand for nursery stock, especially peaches was unusually large in the spring; during the month of February we refused more orders than we filled, the demand being greater than our supply. The intense heat of the last of August was very disastrous to many trees and plants, apples, cherries and roses were badly sun-scalded.

"Already there are many inquiries for next season's trade; prices in many lines are entirely inadequate. Unfortunately prices and not quality catches the eye of many purchasers, this in a measure tends to reduce the prices for first-class stock.

"The plantings of commercial orchards of peaches and plums is largely on the increase. Over two million peach trees were planted in commercial orchards in Georgia this season. From reports so far received from different sections of this state the fruit crop is perfectly assured. In some sections a small percentage of the fruit was injured by frost, but there will be, notwithstanding the small percentage of loss, a large shipment of peaches from this state; and July will keep the orchardists on short allowance of sleep.

"Many prospective peach planters are looking to Georgia as the field for embarking in peach culture. There are tens of thousands of acres of valuable land yet to be had for very small amounts in the most favored peach belts of this state.

"We are pleased to state that the majority of our orchardists are spraying their orchards for brown rot. Last year, in several sections, spraying with Bordeaux for brown rot was most successfully demonstrated and many of the skeptics are falling into line. Thinning out when fruit is too thick is also being adopted.

"Our state entomologist, Prof. W. M. Scott, is doing most valuable work in his department. He is thoroughly alive as to the wants of the fruit growers and does everything in his power to assist them in combatting fungous and insect pests. Recently the state has appointed W. F. Fiske as assistant entomologist."

HUNTSVILLE, ALA., April 18.—John Fraser: "My spring sales took everything I had of standard varieties, at higher prices than last fall. Collections better than usual.

"With the exception of apples, my planting of everything I grow is largely increased. Prospects of a stand the best I ever had at this date. I have no knowledge of the plantings made by my neighbors. I notice that Stark Brothers, at this point, have an immense planting of peach seed, plum and cherry stocks, and their stand appears to be perfect."

SHERMAN, TEXAS, April 18.—John S. Kerr: "The season just closed, in some respects, has been the best on record. Our trade has been very heavy and collections good. Prices have been fair, though not equal to most North-western trade lists.

"Prospects for nursery stock and a good fruit crop for 1901 were never better. Danger of frost is about over."

In Nursery Rows.

CAMPBELL EARLY GRAPE—S. A. Beach, Geneva, N. Y., writing of this grape at the experiment station says: "So far as I have opportunity to observe, it ripens between Moore's Early and Worden, and is a much better keeper than either of these varieties. The berry hangs well to the pedicle and has the advantage over Worden in that it does not crack or drop from the cluster. Although it becomes edible about a week earlier than Worden, it improves in quality if allowed to remain longer on the vine. Early in the season, when it first becomes edible, it is no better in quality than Moore's Early or Worden, but if allowed to thoroughly ripen it becomes superior to either of them. The vine is vigorous and productive. The wood is much shorter jointed than that of Moore's Early. Altogether I consider it worthy of testing where an attractive grape of good quality is desired, having good shipping qualities and earlier in season than Worden."

PEDIGREE TREES—In answer to a correspondent's query regarding a nurseryman's advertisement of "pedigree trees," the Country Gentleman says: "It is always best to have stock from bearing trees, other things being equal. It gives some additional assurance of varieties being true to name. Furthermore, if the propagator is careful to select scions from trees, which are especially prolific, he is likely to give some practical start toward a fruitful orchard. We think this matter is worth attention, though it is not of prime importance in every case. As much as anything else, we should feel increased confidence in a nurseryman who would take the pains to select his scions with such special care. We would expect him to be careful in the other parts of his business, too. It is to be understood, however, that 'pedigree trees' is a convenient advertising phrase, and one must consider how much of the work is done for public effect, and how much for the improvement of the nursery stock."

INSPECTION OF OHIO NURSERIES—Chief Inspector F. M. Webster, made the following report of inspection of nurseries in Ohio from July 9th to Dec. 1, 1900: "Since July 9, there have been 144 nurseries inspected and 157 certificates issued; 13 nurseries having been inspected prior to that date. Total amount received from fees for nursery inspection, \$1,530; fees received for superintending fumigation, \$40, making the total receipts from fees, \$1,570. No treatment has been applied or property destroyed, by any person in the employ of the Board of Control, and therefore no fees received from that service, but the following numbers of trees and shrubs have been treated or destroyed by the owners, in accordance with my directions: Trees destroyed, 7,270; trees treated, 22,033; shrubs destroyed, none; shrubs, treated, 28,700; osage hedge destroyed, 60 rods. There were destroyed or treated on account of being affected, or in dangerous proximity to other trees and shrubs affected by the insects or diseases mentioned in the law, and in numbers as follows: San Jose scale treated, 50,681; destroyed, 6,597; black knot treated, 52; destroyed, 148; peach yellows destroyed, 26. The total expenditures to December 1, 1900, amount to \$3,040.58, which covers salaries, printing, traveling expenses of inspectors and three spraying machines.

Obituary.

John S. Harris, prominently identified with horticultural interests in the Northwest, died in La Crescent, Minn., on March 24th, aged 75 years. He served in the Mexican war under General Scott, and in 1856 he established the Sunny Side Gardens in La Crescent, where he had lived continuously.

J. Frank Norris, head of the well known nursery firm of J. F. Norris & Son, Brighton, died April 14th after an illness lasting about a week. He had been in business in Brighton for fifty years and was well and favorably known. The business was founded in 1842 by Mr. Norris's father, and upon his retirement J. Frank Norris assumed it. Mr. Norris was 58 years of age. He is survived by Mrs. Norris, two daughters, a son, J. Frank Norris, jr., and a brother, George E. Norris, all of whom reside in Brighton. It is announced that J. Frank Norris, jr., who was junior partner in the firm, will continue the business.

IN MARYLAND.

Stock of Peach and all Other Kinds Except Keiffer Pear Ran Short—A Third More Buyers than Usual—"The Best Season in the History of our Business"—Collections Promise to be Satisfactory—Many Orders Booked for Fall.

BERLIN, MD., April 12th—J. G. Harrison & Sons: "This season has been very satisfactory. A strong demand on peach, apple and strawberry plants. The demand on pear trees has been very light. Still we have cleaned up a good many Kieffer. Asparagus roots sold very well at a much better price than last year."

WESLEY, P. O., MD., April 13th—William M. Peters' Sons: "Business this spring has been very satisfactory, both wholesale and retail. In fact the best season we have had in the history of our business. Our only trouble is that we run short of stock. This does not apply to peach alone which was in demand beyond our expectations; but applies to general list of nursery stock. The only thing that seemed to go slow was Kieffer pear, and in our opinion this was caused by the advance in price over other stock. They were out of reach for the commercial planter to take hold of in quantity."

"Individual sales have not been as large as in former years, but we have had at least one-third more buyers and in the aggregate feel certain that net amount received will count more money at a slight advance of prices. On the whole our opinion is that business this season has been done at a fair profit owing to the fact that we have been fortunate to clean everything that was marketable very close. No old stock to carry over or burn as has been the case in former years."

"Our stock for the coming season will be in greater quantity especially on peach, apple and grapevines. Our plant this spring on grape cuttings alone, will be over a million; in asparagus about ten acres and will carry over in one year possibly 300,000 as they were not in our opinion heavy enough to sell at one year and we preferred to hold them over. Our stock of peach, budded last August, for next fall delivery shows upwards of a million. What the percentage of buds to start will be, it is too early yet to determine. Apples budded on whole roots last August which will be two years this fall are fine and after using possibly 20,000 to 30,000 of them for this spring's orders which thinned them nicely, leaves about 50,000 that should all make $\frac{3}{4}$ to $\frac{5}{8}$ trees. In one year budded last August on whole roots, 75,000."

"Our plant this spring of grafts and seedlings will be about 200,000. Strawberry, 30 acres or more—not through yet. In pear and cherry we are growing only in small quantities for retail trade."

"It is our intention to make the growing of grape vines a specialty as we find our land especially adapted to it. Our vines the past season, even under unfavorable circumstances were very satisfactory. Many customers who purchased them could hardly believe they were one year old. Consequently they duplicated their orders and cleaned us out. So we start another season determined if possible to make two-year vines from cuttings planted now, in quality. This we find can be accomplished by selecting good strong wood from our own vineyards."

"We see no reason why business should not compare favorably another season with the past one, provided prices are kept within the reach of commercial planters. In our opinion

it is not good policy to advance prices over the present season. Cherry and Kieffer pears especially were too stiff to justify anything but very small sales. Other stock in general might bear a slight advance."

"We do not think there is an over supply of anything to be put on the market the coming season and with prices held within reach of the planter stock ought to be cleaned up very close at a profit to the growers."

"Business for fall naturally will start up earlier than usual owing to the fact that a number of customers did not get their wants filled. We say this from the standpoint that many of our customers have already placed orders with us for fall so as not to be disappointed. Much will depend on the present year's crop and the profits, which with us at present time are very favorable."

"Season is very backward and until the past thirty days was very dry. This had a tendency to hold back the sap. Now we have plenty of rain and should give us sufficient moisture in the soil to insure a good start of all stocks planted out within the next ten days. In conclusion we really see nothing to cast a gloom over the nurseryman's interest for at least the next two years."

"Collections we think will be satisfactory. So far we have no reason to think otherwise."

FAVORITES IN IOWA NURSERIES.

In a recent issue, the Fruitman summarized the reports of nurserymen of Northern Iowa with regard to the popular varieties of stock in their nurseries. Following are the reports on apples and plums:

APPLES.—Wealthy is far away and without rival the king of varieties in the nursery. Twenty-one out of twenty-three name it as the leader. Duchess makes the nearest approach, having sixteen growers out of twenty-three who rank it among their four leaders.

Northwestern Greening.—This new variety seems to have vaulted to the third place in the estimation of our North-central tree men. Fourteen claim that it is one of their four leading varieties for present grafting.

Ben Davis.—Here is another surprise. Our northern men scatter a good deal on the fourth leader. No variety comes any where within gun-shot of the three great leaders. Our friends along the southern border stick to old Ben, so he comes in with six votes for the fourth place in the list. Then we have an odd pair of twins with five votes each—Jonathan and Hibernial. Who would think of yoking them together, but that is the result when the north line and south line are counted in one district.

The next one and taking seventh place in the list is Patten's Greening. Four men call it one of their four leaders.

Yellow Transparent takes the eighth place with three votes. Then follows a list of twenty varieties, having each one or two backers for position with the grand quartette.

PLUMS.—There are sixteen varieties brought into the race for leadership. All but four are pure Americans DeSota.—This standby leads, having nineteen votes in its support. Wyant is only three behind, getting sixteen sponsors for its popularity. Wolf is third, with fourteen votes. Forest Garden completes the big four by nine votes. Hawkeye falls into fifth place by eight boomers. Surprise is next by four votes. Then come Cheney, Wild Goose, etc.

THE ONLY PAPER FOR NURSERYMEN

IRVING ROUSE, LAKEVIEW NURSERIES, ROCHESTER, N. Y., April 19, 1901:—"Enclosed please find my subscription for the current year. The NATIONAL NURSERYMAN is a live paper, up to date on all current events of interest to the trade, and still maintains its position as the only paper devoted to the interests of the nurserymen."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Theodore J. Smith, Geneva, N. Y.; vice-president, N. W. Hale, Knoxville, Tenn.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual-convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., MAY, 1901.

THE SEASON'S TRADE.

Reports from all sections of the country to the NATIONAL NURSERYMAN indicate a continuance of good trade and the prospect of a prosperous fall business. The season was backward, but, as usual, the spring packing went forward finally and the clean-up was on the whole satisfactory. Reports from the West show that owing to the good apple crop of last year there has been a demand for apple stock, and that higher prices than in several years were received for No. 1 stock. The prospect is that prices on cherry will hold their own and that there may even be an advance; also that there will be an improvement in plum and pear prices. There is a shortage of peach in the West. A Topeka correspondent states that one-year cherry blocks have been dug close and that this will cut the supply of two-year trees for next year materially.

From Canada it is reported that there is a surplus of the leading kinds of sour cherries. More ornamentals than usual

have been sold, and the sale of small fruits has increased materially over that of the last few years. At Toronto frost has been out of the ground since the first of April, and before the middle of the month most of the stock had been dug for the regular packing.

Throughout the country, fall business is reported as opening up well.

FRUIT GROWERS GOING TO BUFFALO.

It is proposed to organize a special excursion of Western horticulturists to the Pan-American Exposition during the summer, says Farm, Field and Fireside. They will arrive in Buffalo in time for the meeting of the American Pomological Society September 12 and 13. The party will have a special train. will visit the fruit sections of Michigan and Southern Canada, and after attending the meeting of their society make side trips to the orchards of Western New York, and return to Chicago through the Chautauqua grape belt. The trip will cover about three weeks' time. The excursionists will live in the cars except when at Buffalo, and a programme of entertainment has already been arranged by a number of horticultural societies on the route. The management of this excursion has estimated upon a sufficient number to make a good train load.

TO MAINTAIN PRICES.

The spring packing season finds the nurserymen enjoying a comparatively full measure of prosperity. It is well at this time to pause to consider what should be done to aid in maintaining or still further improving conditions. Prices are on an upward tendency. The experience of most of those who are in the business proves that prices will remain so only for a more or less certain time. The wiser ones will profit by that experience. Over-production is the bane of uniform prices. This, we believe, is admitted by all. The problem is to adjust matters so that the supply will in some nearly comparative measure meet the demand.

It is when considering this subject that the need of an understanding among the nurserymen in the matter of the production of stock is felt. Some form of combination similar to those in other industries has been suggested, but it has been deemed impracticable. The subject is certainly worthy of consideration, among others, at the annual meeting of the American Association. It is of a very practical nature and might well be discussed instead of an entomological treatise, which, thanks to the executive committee, is not likely to be on the programme.

So well-informed an authority as the firm of Hoopes, Bro. & Thomas says: "We think that prices in the future should be better than in the past, but unless there is some uniformity in the ideas of the trade, there will still be a decided cutting from the figures as sent out in their lists. We notice a great tendency among many nurserymen to yield, we think unnecessarily, in price both in fruit and ornamental stock, as we feel confident that when the season is over there will be scarcely any surplus."

Myer & Son, Bridgeville, Del., say: "Prices have been entirely satisfactory and we have had no trouble in holding them strictly to our printed quotations. Collections are much better than usual and we see no reason why the prices on all nursery stock cannot be held up to a paying basis from now

on if all will make their prices and hold to them and grow no more stock than they can sell at a fair price. The secret is to destroy what cannot be sold at a fair price."

But there should be uniformity of action. At least the members of the American Association could act in unison in this matter, and they include the representative nurserymen of the country.

GOVERNMENT DISTRIBUTION.

There has been much comment upon the fact that the United States Department of Agriculture distributes annually thousands of dollars worth of seeds, under direction of Congress, on the ground that thereby the interests of agriculture are advanced. The popular opinion, freely expressed, is that this is a waste of public funds.

Nurserymen have not been so directly interested in this matter as have florists. Now, however, the nurserymen may be directly affected by the reported determination of the Secretary of Agriculture to distribute young trees throughout the country. The Washington correspondent of the New York Times, says:

"A new plan, having for its object the distribution of young trees throughout the country, will be put into practical operation by Secretary Wilson, of the Agricultural Department, next year. Preparations for this work are now in progress by the Department, and many of the seedlings will be propagated in the grounds of the office here.

"An investigation has been made to discover the varieties which will thrive best in the various localities, and the distribution will be made in a manner somewhat similar to that employed in the seed distribution authorized by Congress. Especial attention will be given to trees of the nut bearing, shade and lawn variety, and oaks, ash and lindens also will constitute a prominent portion of the distribution.

"The Secretary believes the idea will prove popular, and in view of the rapidly diminishing forest reserves will be a decided benefit to the country."

Here is a subject that may be discussed at the convention of the American Association next month.

The following letter from Director Galloway has been received:

U. S. DEPARTMENT OF AGRICULTURE, }
OFFICE OF PLANT INDUSTRY. }

WASHINGTON, D. C., April 25, 1901.

Editor NATIONAL NURSERYMAN:

"My dear sir:—Your note of recent date calling attention to the newspaper articles in reference to a plan for distributing trees has been received. Judging from the inquiries which have come to us, there is considerable interest in this matter and I am glad to furnish you with a statement as to the general plan in view.

"It is not intended by any means to make a promiscuous distribution of trees. On the other hand, it is believed that any work of this kind should be limited to trees which are now only locally known and which through changed conditions obtainable by distribution might prove valuable.

"It is not the intention of the Department to interfere in any way with the legitimate trade. In fact, it is believed that by the proper handling of the matter, the trade can be stimulated by calling attention to the good things we have in our

own country in a limited way. It is thought that by the distribution of a few rare trees and similar plants to different parts of the country, interest would be aroused which would result eventually to the benefit of all lines of horticulture.

"Thanking you for your kind interest in the matter, I remain,

Yours truly,

B. T. GALLOWAY, Director."

RIGHTS OF THE ORIGINATOR.

Jacob Moore, the veteran propagator, again calls attention to the demand for protection for the originator of new varieties of fruits. Commenting upon this subject, the Rural New Yorker says:

It is a part of the shame of modern civilization that many of the men who have given us the new fruits, flowers and vegetables that have really added to the world's comfort and wealth, have in their old age been deprived of ordinary comforts, or been forced to live upon charity. Others have grown wealthy by handling their productions in a business way, but to the shame of society be it said that the profits and a good share of the glory have gone to the handlers. We doubt whether it is possible to remedy this by law. It is too easy to propagate and spread new plants, and too difficult to distinguish them when small. The nurserymen of the country might well afford to make up a fund out of which prizes or awards could be paid to those who produce really superior new fruits. A committee of reliable fruit men should decide which varieties are really entitled to such favor, and award the prizes to those who stand head and shoulders above the rest. Does anyone doubt that under such a system the improvement of our fruits in the future would be more rapid? Is there any class of men in this country under greater moral and financial obligations to do this than the nurserymen? Can anyone suggest a better plan?

DELAWARE NURSERY LAW.

A bulletin by the State Board of Agriculture, of Delaware, gives the following information relative to the enforcement of the law relating to the growth and handling of nursery stock:

TRANSPORTATION OF NURSERY STOCK.

Especial attention is directed to Sections 13, 14 and 15 of this law. Agents of all transportation companies, railroads and express companies and postmasters, will be held responsible for compliance with Section 15, and any carload, bundle, bale or package of nursery stock shall not be received for shipment for points outside of the state, without the attachment thereto of the proper certificate signed by Wesley Webb, and dated within one year of the time such goods are offered for shipment; and if any such agent shall receive any nursery stock for delivery within this state, from points without the state, without having attached thereto the certificate of a recognized state or government inspector, said agent shall not deliver such uncertified nursery stock, but shall immediately notify Wesley Webb at Dover, Delaware, of the receipt of such uncertified stock, and the said Wesley Webb shall issue instructions directing the disposition of the said nursery stock in accordance with Section 14 of the above Act.

RULES FOR NURSERYMEN.

The attention of nurserymen, dealers, brokers and all other persons is called to sections 10, 11, 12 and 16, of the law. The certificate of Wesley Webb, given within one year from the date of shipment or delivery of nursery stock, must be attached to every carload or package of any kind of nursery stock offered for sale or delivery within this state. The penalties for the violation of these sections are severe; and section 16 provides that infested stock must be destroyed, and that the seller cannot collect pay for the same. After August 1, 1901, nurserymen in the state will be required to properly fumigate with hydrocyanic acid gas all nursery stock offered for sale or shipment or delivery. Further information will be furnished upon application to the inspector, at Dover.

Among Growers and Dealers.

Employees of the Storrs & Harrison Co., Painesville, Ohio, to the number of 150, have formed an association.

Fire destroyed the residence and some of the neighboring buildings of W. K. Nelson, Augusta, Ga., on March 17th.

Robert George, of Storrs and Harrison Co., Painesville, O., is erecting a fine dwelling adjacent to that of J. J. Harrison.

Burglars blew open the safe in the Green Nursery Co.'s office, in Chili, near Rochester, on April 18th, and secured \$250.

New locations: Stoye & Steele, Eatonville, N. J.; Ernst Haentze, Fond du Lac, Wis.; S. C. Clark, Colorado Springs, Col.

W. B. Clarke, Rochester, N. Y., and C. C. Cutting, of Kalamazoo, Mich., have opened offices of the American Nursery Co., at Kalamazoo.

The dutiable imports of plants, shrubs and vines amounted to \$21,153 in February, 1901, against \$26,953 in the same month of last year.

In its issue of April 20th, the American Florist presents a photo-engraving and sketch of the veteran nurseryman, George Ellwanger, Rochester, N. Y.

The South Dakota legislature has appropriated \$10,000 for a plant breeding building, to be used by Prof. N. E. Hansen, of Brookings, who addressed the nurserymen last June at the Chicago convention.

J. T. Withers, who has been foreman of Keney Park Nurseries at Hartford, Conn., for five years, is the new superintendent of the Bay State Nurseries, W. H. Wyman, proprietor, at North Abington, Mass.

These officers have been elected by the Phoenix Nursery Co., Delaware, Wis.: President, H. C. Johnson; vice-president, D. E. Lee; secretary, treasurer, and manager, A. P. Wilkins. Other members of company are E. F. Williams and F. A. Rice.

The French government has conferred the decoration of the order of Merite Agricole upon the following officials of the United States Department of Agriculture for services performed at the Paris Exposition: G. B. Brackett, pomologist; W. A. Taylor, assistant pomologist.

The first box of cherries for the season of 1901, says a despatch to the California Fruit Grower, was shipped from Vacaville, April 11th, by Frank H. Buck, consigned to Porter Bros., Company, of Chicago, where, it was presumed, it would be sold for the customary \$10. The fruit was of the Purple Guigne variety.

The total exports of apples from Canada for the fiscal year ended June 30, 1900, were 956,458 barrels, valued at \$2,578,233; the exports from the United States for the same period were 526,636 barrels, valued at \$1,444,655. The exports of dried apples from Canada were 4,181,038 pounds, valued at \$210,892; from the United States, 34,964,010 pounds, valued at \$2,247,851.

The president of the Nova Scotia Fruit Growers' Association, at the recent meeting said: "From all available sources I have estimated the value of fruit industry to Nova Scotia as follows: Annual value of fruit crop, average, about \$1,000,000. Value of orchards now bearing, 9,000 acres, at \$500 per acre, \$4,500,000. Annual additional value to permanent wealth of the province by young orchards, 5,000 acres, at \$200 per acre, \$1,000,000.

TENNESSEE INSPECTION LAW.

At the recent session of the Tennessee legislature a bill was introduced creating the office of state entomologist, providing for the official inspection of nursery stock, and regulating the transportation of same. This bill passed both houses and became a law, which went into effect immediately after its passage. As this new law is of special interest to all nurserymen it is herewith presented:

A Bill to be entitled "An Act to create the office of State Entomologist and to prevent the introduction or dissemination of noxious insects or infectious or contagious diseases of trees, vines, shrubs or

plants grown in this State or imported from other States or countries.

Section 1. Be it enacted by the general assembly of the State of Tennessee, that the office of State Entomologist is hereby created.

Section 2. Be it further enacted, that the governor is empowered to select a competent, scientific and practical entomologist, who shall be known as the State Entomologist, and who shall execute the provisions of this Act.

Section 3. Be it further enacted, that it shall be unlawful to grow, keep, offer for sale, sell, introduce or transport within the bounds of the State of Tennessee, any plants, scions, trees, shrubs or vines, without a certificate from the State Entomologist, showing the same has been inspected and found to be free from San Jose scale, yellows, root knot or any other dangerous insect, pests or diseases. And each box, handle, package or car, shall be plainly labelled on the outside with the name of the consignor, and the name of the consignee. Every package shall also bear the certificate of the State Entomologist, as above set forth in this section, and no certificate shall be valid longer than twelve months from the date of inspection. Any person or persons knowingly violating this section shall be guilty of a misdemeanor punishable by fine, of not less than Twenty-five dollars, nor more than one hundred dollars.

Section 4. Be it further enacted, that it shall be the duty of the State Entomologist to visit and inspect whenever he deems it necessary all nursery or floral premises where trees, vines, plants, shrubs, flowers, etc., are grown and offered for sale, and upon failing to find any of the pests here enlisted, or other dangerous insects, or contagious or infectious diseases, he shall issue a certificate to that effect. He shall report upon each inspection, in writing, to the owner of the stock, and file a copy of the report in the office of the president of the Board of Trustees of the University of Tennessee, where it shall be at all times subject to public inspection. It shall be his duty and he shall have the power to enter any nursery or floral premises and examine all plants, trees, shrubs, etc., offered for sale when he has any reasons to suspect that any pests here enlisted exist. The State Entomologist shall have the power to determine whether infested trees, plants, vines, shrubs, etc., are worthy of remedial treatment, or shall be destroyed. And in each case he shall serve notice of same to the owner or owners of said trees, plants, vines, shrubs, etc. It shall be the duty of the State Entomologist when requested to do so, by the owner, to inspect orchards, gardens and private premises, and to exercise all powers set forth in this section, if the persons owning such property so required.

Section 5. Be it further enacted, that infected nursery or floral premises where their products are offered for sale or distribution be declared a public nuisance, and abatement thereof by destruction or treatment for infested trees, vines, shrubs, plants, flowers, etc., as may be prescribed by the said entomologist, which shall be executed at once at the expense of the owner or owners. Upon satisfactory evidence of the owners failure or refusal to execute the directions of the said State Entomologist, the Attorney General of the Circuit shall bring proper proceedings to abate such nuisance, and the cost thereof shall be paid by the owner or owners. This section does not apply to farmers and orchardists who do not sell or distribute trees, vines, plants, etc.

Section 6. Be it further enacted, that any interference with the state Entomologist while in the performance of his duty under this Act, shall, upon conviction be punished by a fine of not less than five dollars nor more than Twenty-five dollars for each offense.

Section 7. Be it further enacted, that whenever any trees, shrubs, plants, or vines, are shipped into the State of Tennessee, from another State or country, every package shall be plainly labelled on the outside with the name of the consignor and the name of the consignee.

Every package shall also bear the label of a State or Government inspector, which shall indicate that the contents appear free from all injurious insects or diseases. Whenever any trees shrubs, plants or flowers are shipped into the State of Tennessee without such certificate plainly fixed on the outside of the package, box or car containing the same, the fact must be reported within twenty-four hours to the State Entomologist by the railway, express or steamboat company, or other person or persons carrying the same, and any agent of any railway, steamboat or express company or any other person or persons who shall violate the provisions of this section, shall be deemed guilty of a mis-

demeanor, and upon conviction thereof, shall be fined in any sum not less than Twenty-five dollars nor more than fifty dollars.

Section 8. Be it further enacted, that any person or persons growing or offering for sale in the State of Tennessee, any trees, vines, shrubs, plants or flowers, commonly known as nursery stock shall, between the first of August and the first of September of each year apply to the State Entomologist for inspection of said stock under provisions of this Act. A certificate of inspection from the State Entomologist shall be good for one year. Any violation of this Act shall render such person or persons liable to a fine of not less than twenty-five dollars nor more than fifty dollars.

Section 9. Be it further enacted that the state entomologist shall be, and is hereby directed for the expense of inspecting nurseries and floral premises, to collect a fee of five dollars for each inspection of any greenhouse or floral premises, and a fee of five dollars for inspecting a nursery of less than fifty acres, and a fee of ten dollars for inspecting a nursery of over fifty acres, and less than one hundred, and a fee of fifteen dollars for inspecting any nursery of more than one hundred acres. But for the inspection of any farmer's premises, there shall be no fee, but in case the owner of any farm, garden, or orchard, who sees fit to have his premises inspected, it is the duty of the State Entomologist to make such inspection, and while superintending any insecticide work in treating such premises, a fee of two dollars per day is to be paid by the owner.

Section 10. Be it further enacted, that all fines and fees collected under all Sections of this Act, shall be paid to the University of Tennessee. All money so collected shall be used in carrying out the provisions of this Act and a statement of the receipts and expenditures shall be kept on file for public inspection, and the Treasurer of the University of Tennessee shall report to the Governor for transmission to the Legislature.

Section 11. Be it further enacted, that all laws and parts of laws in conflict with this Act, be, and the same are hereby repealed.

Section 12. Be it further enacted, that this Act shall take effect from and after its passage, the public welfare requiring it, but where a nurseryman or florist already has an official certificate, it shall be valid until September 1, 1901, except where the premises are found to be infested with San Jose scale since said certificate was issued.

Passed April 12, 1901.

PAN-AMERICAN EXPOSITION.

BUFFALO, April 15.—In both the Landscape and Horticultural Departments of the Pan-American Exposition matters are very satisfactory. All the shrubs set out last fall have come through the winter in fine style, none of them having been killed. The grass, wherever seed was sown, is also in good condition.

The bulbs which have been planted both in the Landscape and Horticultural Departments will make a most brilliant show during May. A quarter of a million or more have been planted by the Department of Works, and an equal number by the Horticultural Department. Most of them are already uncovered and up through the ground. The water plants are doing extremely well, as the winter has been very favorable to them.

An immense number of plants are being propagated—in the neighborhood of a million—in the conservatories and greenhouses. These will be used in beds about the Court of Fountains, in the Sunken Gardens, about the Pagodas, and in the hundreds of vases, and will fill the half mile or so of window boxes.

All the 175 beds of the Horticultural Department will present a gay appearance during the coming month, those not filled with bulbs now having pansies in them.

Recent Publications.

United States Department of Agriculture—Sixteenth annual report of the Bureau of Animal Industry; Experiment Station Record, Vol. XII, No. 6; Practical Assistance to Tree Planters, by Gifford Pinchot.

Dodd, Mead & Co., New York, have secured all the copies of a limited edition of Eugene Field's sketches under the heading "The Tribune Primer." The price, in Japan paper is \$25 per copy; in hand-made paper, \$10.

Those interested in Tolstoi will find a sketch of his life, with an analysis of his work, in Mrs. May Alden Ward's "Prophets of the Nineteenth Century: Carlyle, Ruskin, Tolstoi." The volume was issued last spring by Little, Brown & Co.

With the issue of April 18th, The Youth's Companion entered upon its 75th year. The "75th Birthday Issue" was a double number, counting among its contributors the Vice-President of the United States, Theodore Roosevelt, Mary E. Wilkins, and Sarah Barnwell Elliott.

The proceedings of the forty-sixth annual meeting of the Western New York Horticultural Society have been issued by the secretary, John Hall. As usual, the book contains a large amount of matter of value to all who are in any way interested in horticulture. The society has 800 members. The published proceedings are sent to all members; membership fee, \$1.

Recent Publications: Transactions of the Peninsula Horticultural Society, 1901, Wesley Webb, Dover, Del., Secretary and Treasurer; "Spraying for Profit," H. E. Weed; Dates of Cut Flower exhibitions, Pan-American Exposition; Experiment Station Record, No. 7, Vol. XII, United States Department of Agriculture; Catalogues, Storrs & Harrison Co., Painesville, O., Charles Fremd, Rye, N. Y.

The great work, the "Cyclopedia of American Horticulture," edited by Prof. L. H. Bailey assisted by William Miller and many expert cultivators and botanists, is nearing completion. Volumes I, II and III are ready and volume IV completing the work is in press and will be published soon. In this cyclopedia will be found a complete description of all species of fruits, vegetables, flowers and ornamental plants in America. Directions for cultivating all kinds of crops and observations on marketing, etc., are given by experts. Sold by subscription. \$5.00 per volume. New York: THE MACMILLAN COMPANY.

"A Text Book on Plant Diseases Caused by Cryptogamic Parasites" written by George Massee, F. L. S., principal assistant at the Royal Herbarium, Kew, England, has been issued by the New York publishers, the Macmillan Company. It is one of the most complete and practical books of this kind that has come to our desk. The pages are literally filled with information, condensed yet amply sufficient for field and greenhouse work. The aim of the book, as set forth by the author in the preface, is to enable those directly occupied in the cultivation of plants, and with but a limited period of time available for study, to determine the nature of diseases caused by parasites of vegetable origin: to apply in the most approved manner those curative and preventive methods which experience has shown to be most successful in combatting the particular form of disease under consideration; and finally to include in the daily routine of work precautionary measures which, without being costly, frequently prevent a slight disease from assuming the proportions of an epidemic. In his introduction the author discusses the amount and kind of knowledge required by practical men, familiarity with names and habits of parasites, preventive measures, cures and rule-of-thumb methods of doubtful value. Succeeding chapters treat of fungi, lichens, algae, myxogastres, bacteria, fungicides, economic considerations, spraying, fungous parasites, and diseases of uncertain origin. Nurserymen have become fairly familiar with the habits of pernicious insects and with some diseases, but they are often at a loss to account for ravages which a knowledge of cryptogamic parasites might enable them to prevent or to cure. The nature of fungi and parasites, mode of growth and reproduction of fungi, danger connected with pruning, selection of shade trees, nature of bacteria, methods of spraying, etc., are here described. The book is illustrated and the typographical arrangement makes easy reference to

any of the subjects, this facility being increased by two indexes, one of host plants and one of parasites, fungicides and botanical terms. Cloth. 8vo. Pp. 458. \$1.60. London: DUCKWORTH & COMPANY, New York: THE MACMILLAN COMPANY. Rochester: SCRANTON, WETMORE & COMPANY.

AMERICAN POMOLOGICAL SOCIETY.

The twenty-seventh biennial session of the American Pomological Society will be held in Buffalo, September 12th and 13th, 1901. A programme covering subjects of general and vital interest is being prepared. Meanwhile members are invited to inform the secretary regarding any subjects of general interest that are of special importance in their respective sections of the country. The National Bee Keeper's Association will meet with the society. A fruit exhibit is urged. Details of arrangements will be announced later. The biennial membership fee is \$2, life membership, \$20. The officers of the society are: President, Chas. L. Watrous, Des Moines, Iowa; first vice-president, Thomas Meehan, Germantown, Philadelphia, Pa.; secretary, Wm. A. Taylor, 55 Q St. N. E., Washington, D. C.; treasurer, L. R. Taft, Agricultural College, Mich.; chairman executive committee, Charles W. Garfield, Grand Rapids, Mich.

INSPECTION IN OHIO.

Prof. F. W. Webster, chief inspector, describing the method of inspecting nurseries and orchards in Ohio, says that nearly 200 nurseries have been inspected. "Some of these are rather insignificant in dimensions," he says, "and there has been some complaint of injustice in requiring the inspection of strawberry fields, but where strawberry plants are grown among trees infested by San Jose scale, we have found the plants also infested, and for this reason, public safety seems to demand inspection. Every effort is put forth to make inspection mean precisely what it purports to mean, and, while a slight infestation might escape the vigilance of the inspector, once, it is not likely to a second time."

The city of Baltimore has bought a large quantity of Holland grown stock from the Boskoop Nursery Nursery Co., through Mr. Joosten of New York.

Long and Short.

Suzuki & Ida have removed from 11 to 31 Barclay Street, New York City.

The J. G. Harrison Co., Berlin, Mo., announce a surplus list in another column.

F. H. Stannard Co., Ottawa, Kansas, have a fine stock of standard nursery stock in wide variety.

Jackson & Perkins, Newark, N. Y., are headquarters for roses, clematis, climbing vines, herbaceous plants.

P. J. Berckmans Co., Augusta, Ga., offer for fall of 1901, the largest stock of trees, plants, etc., they have ever grown.

For fruit trees, small fruits and ornamentals, Ellwanger & Barry, Rochester, N. Y., should be consulted in time of need.

This is the fiftieth year of the Knox Nurseries, H. M. Simpson & Sons, Vincennes, Ind. They offer special inducements in apple, cherry, peach, and American arbor vitae.

Apple, peach, cherry, pear, plum and apricot trees may be had of Peters & Skinner, North Topeka, Kan., also apple seedlings in fine grades, pear seedlings and forest trees and seedlings.

D. Hill, the Evergreen Specialist, of Dundee, Ill., has several million of young evergreens, seedlings and small transplanted that he is offering to the nursery trade at very low prices. Send for his "Last Call."

William M. Peters' Sons, Wesley P. O., Md., will have a greater stock than usual the coming season, especially in peach, apple and grape vines. They will make the growing of grape vines a specialty.

The first introduction in America of Black Insoluble Insecticide Soap is announced by V. Casazza & Brother, 190 Prince Street, New York City. It has been awarded grand prizes at several expositions and is recommended by the largest nurserymen in Europe, as destructive of all pests of outdoor or indoor plant life, including San Jose scale.

The Storrs & Harrison Co., Painesville, O., usually commence digging in the spring from the 20th of March to the 1st of April and continue through May. This is the forty-seventh year of the nursery. They have over one thousand acres devoted to the nursery business, with large and best equipped storage cellars. A full stock of ornamental trees and shrubs.

Inspector Harry Peck, acting under orders from the commissioner of agriculture at Albany, closely watched the packing grounds at Rochester, N. Y., this spring, and, so far as reported, he found everything satisfactory. Reports of similar close inspection of nursery stock came from other states.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT.

Sole Agent for United States and Canada.

39 AND 41 CORTLANDT STREET, NEW YORK.

Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,	HEADQUARTERS FOR NURSERY STOCK. Baltimore and Richmond Nurseries, BALTIMORE, MD. FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS. When writing to Advertisers mention The National Nurseryman.	Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.
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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Violent crosses produce untold defects in fruits and plants"—CHARLES G. PATTEN.

VOL. IX.

ROCHESTER, N. Y., JUNE, 1901.

No. 6.

PROPAGATING FROM SEEDS.

Serious Mistakes Due to Overlooking the Fact that Violent Crosses Produce Untold Defects in Fruits and Plants—Belief that Practice of Emasculating Stamens and Cutting Off Petals in Pollinizing is Faulty—Leave Flower Intact.

In the course of an article by Charles G. Patten, Charles City, Ia., published in the Minnesota Horticulturist, on "Propagating New Varieties of Tree Fruits from Seed, Mr. Patten says:

"We know but little of the ancestry of our fruit trees, and so we have need to be wiser and more thoughtful than the stockgrower. To breed improved fruits for this climate every element of perfection in tree and fruit that it is possible to find should be brought together. Hardiness, freedom from blight, vigor, leaves that are resistant to unfavorable combinations of heat and moisture, fruits that hang well to the tree until mature, good size, freedom from defect in skin, beautiful, productive and of as good quality as possible. Such a tree should hold its leaves for a normal length of season for the latitude in which we are working. Judged by these points, the Oldenburg and Hibernial are defective, for they both drop their leaves seven to ten days earlier than they should in the average season, and both also drop their fruit too easily. Our northern native plums are defective in dropping their fruit and shedding their leaves too early, and I have no doubt that these defects will be improved upon by crossing them with the Miner plum and some of its seedlings.

"Innumerable and serious mistakes have been made all over the northwest in an endeavor to mingle the little Siberian with our cultivated apple, forgetting that violent crosses produce untold defects in fruits and plants as well as in animals. Some of our most noted originators of new plums here in the west are, I fear, making this mistake, getting too far away from line breeding and mixing widely distinct types. What was once one of the most important stock centers of the west for high bred cattle has greatly deteriorated on account of this mixing process. A little Holstein, a little Short Horn, a little Polled Angus, and a little Jersey has wrought the mischief.

"The mixing process is a scattering and diluting process nearly every time. In improving the apple for Minnesota and the Northwest, we must have hardiness. Then, says one, we must go back to the Siberian. Not so, for it has been demonstrated by actual experiment that some of the third hybrids, like Whitney's No. 20 and Briar's sweet that are at least seventy-five per cent., apple will produce seedlings that are hardy and more free from defects than where the old Siberians were crossed with the apple. So that if we would make an all-around advance with the apple, one of the parents should be such advanced hybrids as Sweet Russet, Minnesota, and Meader's Winter, and better, if you know them, being sure that they hold both leaves and fruit reason-

ably well, and first rate, if possible. However, holding a large part of the leaves too late would be an indication of immaturity.

The seeming advantage that the stock men have with their highest developed breeds may be more seeming than real. The horticulturist has at least this advantage, that when he has once secured a Concord or a Worden grape, or a Wealthy apple, he can multiply them by the millions and have them exactly alike, while the stock breeder can only rarely exceed the high average of his herd, even with the most thoughtful care, and at best his failures will be considerable.

And there is still another feature that most horticulturists have overlooked in the production of new varieties; namely, that such plants and trees as the Concord and Worden grapes, the Ben Davis, Wine Sap, Fameuse, Duchess, Wealthy and the Patten's Greening apples and the Richmond cherry are the crowning results in horticultural evolution. They are to horticulture, whether produced by natural or artificial selection or development, what the Morgan horse is to horse breeders, Stoke Pogis 3rd to the dairymen and Bates and Cruickshank Short Horns to the producer of beef cattle. Such plants and trees are even more than thoroughbreds. They are the highest types of their race. They are the culmination of all the cumulative forces toward a higher perfection in horticulture. They are the prepotent individuals that establish breeds and families in fruits. Their seedlings are often as pronouncedly stamped as are the offspring of the Holstein or the Jersey cattle. And if horticulturists would pay attention to the scientific laws of development and breed from such plants, we would hear less about the deteriorating forces of reversion to lower ancestral types, and our table would not be burdened with a multitude of small and worthless fruits.

Of course, if we plant the seeds of inferior seedlings and their crosses, that fairly represent generations of worthless fruits behind them, the law of reversion will be strikingly manifest.

On the grounds of the writer are seedlings of known parentage already in bearing. Such as Duchess crossed with Grimes' Golden, Patten's Greening and Grimes' Golden, Pink Anis and Jonathan, Maiden Blush and a Duchess seedling—a cross of fall Pippin and Duchess—and Briar's Sweet with Pound Sweet and Wolf River also, and so on. Also four or five grand-seedlings of the Duchess with parentage partly known.

When we know that in such crosses as Duchess and Grimes' Golden we have hardiness and excellence of fruit combined, why not pollinize that tree with its own pollen, or pollen of the Patten's Greening and Grimes' Golden cross, instead of taking chances of dissipating and scattering the forces that we have already combined with the uncertain pollen of any other variety.

According to the written experience of Mr. Budd, the

Duchess is a very prepotent sort, but by actual test on my grounds the reverse is true except in hardness. I know of no variety that is more easily overcome by the pollen of another sort. It does perpetuate its hardness to a reasonable degree. In one instance a cross of Grimes' Golden obliterated every trace of it both in tree and fruit, except as stated.

In conclusion, permit me to say that I believe that the practice of emasculating the stamens and cutting of the petals in pollinizing is faulty, and that we would reach higher results if we would let the flower remain intact. I believe that the Infinite Mind knows better than we whether the perfect maturity of both petals and stamens were necessary to the highest development of the embryo germ of the future fruit that is forming in the flowers.

There are so many instances on record of one plant when crossed on another where the pollinizing parent obliterated the characteristics of the other parent, that we cannot doubt that whether we practice heroic surgery or not on the flower, the fact still remains that one plant when crossed on another in its most natural and perfect condition will obliterate the distinctive characteristics of the other parent in their offspring. This is a broad field full of mysteries and surprises, and he who labors faithfully and lovingly in it will be sure to find happiness if not gold.

OSWEGO STRAWBERRIES.

Under this caption, Prof. L. H. Bailey, of Cornell University, has issued a bulletin from which the following is extracted :

Oswego is the center of the most important strawberry industry of New York State. The leading natural advantages of this region for the commercial production of strawberries is the lateness at which the crop matures. When the berry season of New Jersey and Southern New York is past, the Oswego berries are in their prime. The lateness of the crop is still further emphasized in the selection of late varieties, as Atlantic, Parker Earle, and Gandy. The season opens about June 20th and continues for three weeks.

Oswego lies at the southeastern corner of Lake Ontario. The climate of the region is tempered by the lake, and the soil is well adapted to many kinds of fruits. Next to strawberries, pears are the leading fruit crop, and plums and other fruits are prominent. It is at Minetta, in this region, that Schuyler Worden originated the Worden grape and the Worden pear.

The strawberry business of Oswego County came into existence in 1863, when Morris Pierce brought into the city of Oswego a few quarts of cultivated strawberries and placed them on sale at the stand of Thomas Hart, to be gazed at as a curiosity by hundreds of persons, and sold at one cent per berry. The price realized and the interest created, so stimulated the new born industry that Wm. Adams, Seymour Coe, Justin Janny, W. J. Stark, and a few others, commenced the cultivation of strawberries to the extent of about 100 quarts per season each, and prices assumed a more natural tone.

In 1866, the first shipments were made from Oswego, and went by boat to Ogdensburg, N. Y., Kingston, Ont., and Montreal, and by rail to Watertown and Syracuse, N. Y. The varieties grown were the Scarlet and the Wilson. For shipment to Canadian parts and Ogdensburg the berries were put

up in crates about four feet square, requiring four men to handle. These crates held about 300 quarts.

In 1868, the trade extended to Rome, Utica, and Albany, and prices realized were about 6 cents per quart, the style of crate changing to a 45-quart and a 90-quart.

In 1872, the strawberry growing extended to other parts of the county east of Oswego city, and trade was opened with New York City. The first strawberries sent to New York were shipped in 1872, by express in about 100 crates, over the D. L. & W. R. R., at a cost of \$1.00 per crate for transportation.

It is impossible to secure complete statistics of the volume of business done in strawberries in the Oswego district. The best that can be done is to print the records or the express and freight shipments by rail, which shipments may be assumed to represent four-fifths of the commercial crop. The strawberry growing of Oswego County probably covers 1,000 acres. The average net f. o. b. price realized for berries ranges from 6 to 8 cents per quart. All berries are shipped in 36-quart crates. George A. Davis, Mexico, one of the leading growers, writes : "From observation I judge that ninety per cent. stay in the business, only ten per cent. changing yearly. I think, on the whole, that the berry business compares favorable with other branches of farming."

HOW THE BALDWIN HAS IMPROVED.

In New England, says the Rural New Yorker, when the hill farmers wish to give you their best, they will bring you a dark red, solid, rich Baldwin apple. Some things grow better as they go away from home, but this is not true of Baldwin. It was born in Massachusetts, and it still reaches its highest perfection on the hills of its native state. During the early winter many of the cellars under the New England homesteads are great pits of perfume. They are well stuffed with apples, and as you open the door a flood of fragrance rushes out. Western New York is a great apple country—settled originally by Yankees. The Baldwin apple is largely grown there, too, yet it has not been regarded as a first-class eating apple until recently.

"Why," said a large grower in Orleans county, "up to this year none of our best farmers thought of storing Baldwins for their own eating. They were good enough to sell, but not good enough for home use."

"What do they use?"

"Spitzenberg, Northern Spy and Greening are favorites."

"Did you say some of them have eaten Baldwins this winter?"

"Yes, continued spraying has greatly improved Baldwin—there is no question about it. It has improved in size, quality, and appearance!"

"What else has it done?"

"That ought to be enough, but the trees are becoming more vigorous. You will see whole orchards which now hold their leaves until after heavy frost, where five years ago the trees were bare as poles before frost came. This is due to spraying, which has kept the leaves green and thrifty all through the season. Several years of this have given the old trees new life and vigor. We are satisfied, too, that spraying and cultivation have prevented the off year in the Baldwins. They now bear every year."

Among Growers and Dealers.

Ellsworth Brown has begun the nursery business at Seabrook, N. H. Prof. S. M. Emery has resigned the position of director of the Montana Experiment Station.

Henry Schroeder, Sigourney, Ia., read a paper on figs in Iowa, at the recent state horticultural meeting.

F. L. White, of the Moscow Nursery, Spokane, Wash., reports a large sale of fruit trees during spring of 1901.

Nashua, N. H., is to lay out a park of 160 acres. Young trees are to be planted. Judge C. W. Hoitt is a park commissioner.

S. D. Willard, Geneva, N. Y., is president of the Ontario County Fruit Growers Association formed at Canandaigua, N. Y., on May 4th.

The dutiable imports of plants, shrubs, and vines amounted to \$50,986 in March, 1901, against \$54,655 in the same month of last year.

The Farmers' Nursery Company, Baltimore, has obtained a verdict for \$800 against the Baltimore and Ohio Railroad Company for plants destroyed en route.

T. V. Munson, Denison, Tex., writes: "Have had unusually good trade last fall and this spring. We always take much interest in reading the NATIONAL NURSERYMAN."

A tree is wholly the property of him upon whose land it stands, notwithstanding the roots extend into, or the branches overhang, the land of the adjoining owner, say the New York and other state courts.

It is reported that the Enterprise Nursery Co., St. Joseph, Mo., has given a deed of trust to Maurice Phillips for the benefit of creditors. Irving Rouse, Thomas Meehan & Sons, Fairmount Nurseries, and W. T. Hood & Co., are creditors. The largest claim is \$70.50.

Dr. Galloway of the Department of Agriculture, in whose hands Secretary Wilson recently placed all matters connected with the governmental free distribution of seeds, is formulating a system of free distribution which will do away with the present promiscuous and unsatisfactory method.

Plans have been agreed upon for a new United States Department of Agriculture building to cost not exceeding \$2,000,000. It will be U-shaped, of white marble, four stories high, with a 400 foot front and two wings each 200 feet long. The present building will be incorporated within the new structure.

The imports of nursery stock into the United States during the five years ended June 30, 1900, were valued as follows: 1896, \$955,307; 1897, \$963,977; 1898, \$762,158; 1899, \$768,982; 1900, \$972,385. The exports from the United States were valued as follows: 1896, \$133,735; 1897, \$135,047; 1898, \$96,330; 1899, \$134,929; 1900, \$107,172.

The Pennsylvania legislature has passed a bill looking to the preservation of the forests and aimed to promote planting of highway trees. Any person liable to road taxes, who shall transplant to the side of the public highway on his premises, any fruit, shade or forest trees of suitable size, shall be allowed by the supervisor of roads, in abatement of his road tax, \$1 for every two trees set out.

The strawberry fields of J. G. Harrison & Sons of Worcester Co., Md., cover over 60 acres of newly cleared land. This firm now has about 1000 acres devoted to fruits. It is an interesting sight to see these happy negroes at work, says the American Agriculturist. There is one old auntie and 16 of her children. She says she has worked on this same farm for "nigh onto 20 years" and brought her children up "a-packin' and a-pickin' berries."

WILL STIMULATE PRICES.

R. H. Blair & Co., proprietors Lee's Summit nurseries, Kansas City, Mo., write: "Our sales for the past spring have been very satisfactory, our stock closed out well and collections never better. Our plant starting off well in everything, owing to a favorable spring. Prospects for a sumptuous crop of fruit this season will stimulate prices for trees next spring, the supply not being in excess of the past season."

TEXAS FRUIT GROWERS ENCOURAGED.

A correspondent of the California Fruit Grower writing from Austin, Tex., says: Just what the passage of the Dixon bill means to the vegetable and fruit interests of this state is hardly appreciated even by those whom it most affects. About eighty companies are organized already and will open up as soon as charters are received. Before the organization of fruit companies in California, Missouri, Georgia and Arkansas the growers in those states experienced the same trouble in marketing that the growers of Texas have had, and to engage in the industry was a precarious business. But it is different now. Land values in those states have about doubled and a general spirit of thrift prevails. The fruit crops of California last year brought the growers of that state \$30,000,000 or about \$20 per capita. Texas has a greater area suitable to this industry than California. She is a thousand miles nearer the great markets and from twenty to thirty days earlier in ripening period. It is impossible to conceive of what can be done in this state. Ten years will bring about a wonderful change. Fruit growing in Texas has just begun and thousands of acres stand ready for occupancy.

SCHOOL OF PRACTICAL HORTICULTURE.

The formal opening on May 15, 1901, of the new school building and dormitories of the New York School of Practical Horticulture at Briarcliff Manor, Westchester county, N. Y., marks another pronounced step in the advancement of horticulture. Three hundred persons attended the exercises.

George T. Powell, under whose direction work at the school is done, announced that they had now thirty students. It is barely fifteen months since the plans were laid for the present school, yet such had been their success that they were able to open up for studies in September last with nine students; and now they boasted of thirty! He was furthermore delighted with the class of students which they had been able to bring together; with the thoroughness with which they had been imbued; their determination to learn and to succeed. He spoke of a New York city gentleman now at Briarcliff as a student in his overalls, doing some ditching. He was glad that he was able to make such an appearance, although it would shock some of his friends, glad that he was able to learn how to make ditch and lay tile, and to do it in such a workmanlike manner that no one could get beyond it. Mr. Powell thought that with students of that calibre, the efforts put forth at Briarcliff would be well rewarded. He spoke interestingly of the many advantages which the school has, its proximity to the model dairy farm belonging to W. W. Law, who has an estate of six thousand acres, and who has in his dairy department 1,045 Jersey cattle, over 1,500 pigs, 4,000 chickens and 400 sheep, and beside all this huge commercial greenhouses. The school has the privilege of studying all this work in the regular course. The proximity of the school to New York is also a distinct advantage, in that such business men who are beginning to think about making investments in land, will take advantage of the school and get information which will be of immense value. In that way the school will not only educate the cultivators, but it will educate the investors, and, as Mr. Powell looked at it, this will be a distinct advantage.

SOUR CHERRIES OF AMERICA.

Important Contribution to Literature on the Subject by G. Harold Powell of Delaware Experiment Station—Variations Pertaining to American Nurserymen and Fruit Growers—Discussion of the Montmorency Cherries—Four Groups Considered.

One of the most valuable bulletins from the nurserymen's point of view is that regarding the sour cherries of America by G. Harold Powell, from the Twelfth Annual Report of the Delaware Experiment Station. The discussion of the Montmorency cherries by the American Association of Nurserymen in annual convention indicates the interest in this subject, and the need for a careful study of it. Mr. Powell says:

The sour cherries of the United States are European varieties or seedlings or variations of them. The Pilgrims brought seeds of the Kentish with them, but nearly all of the modern sorts have been introduced since the beginning of the nineteenth century. These cherries are grown in many parts of Europe, where they are much confused in classification and nomenclature, and the perplexities have been augmented after more than a century's experience with American nurserymen and fruit growers.

A classification of the true sour cherries presents many perplexities. There are no collections in Europe or America that embrace a large number of accurately named sorts, and the literature in both countries is hopelessly confused. Amongst botanists there is a disagreement as to the number of cherry species, but I have accepted, with Bailey, the Linnean classification, which refers the sweet cherries, including the Dukes, to *Prunus Avium*, and the sour cherries to *Prunus Cerasus*. The Dukes, from the earliest cherry literature, have been classed usually with the sour cherries, but the two classes agree only in the source of the fruit.

In America, Downing made no attempt to separate the sour cherries, but called them all Dukes and Morellos. In this he was followed by Barry, but Thomas recognizes, with the Germans, the two broad classes. Bailey adopts the term Amarelle for the first class, but calls the second Morellos, and in this he has been followed by the writer in former publications. Bailey, however, distinctly separates the Dukes, referring them to their proper species, *Prunus Avium*.

The varieties of *Prunus Cerasus* grown in America seem to arrange themselves in four well defined groups, viz., Montmorency group, (English) Morello group, Brusseler Braune group and Vladimir group.

MONTMORENCY GROUP.

This group, of which the Montmorency is the type, is characterized by medium sized trees, reddish brown, slender, generally spreading or upright branches; light colored, medium sized, ovate sometimes approaching elliptical, rather coarsely and bluntly serrate foliage; fruit pale red, generally cordate at the ends; flesh light colored, watery; juice uncolored, moderately acid; stem $\frac{3}{4}$ to $1\frac{1}{2}$ inches long; ripening early in the season.

The Montmorency group is the most important pomological collection in America. It includes most of the Amarells of the Germans, of O. Thomas, and of Bailey, and the Red Morellos of Hogg. It is also the best defined group. There is much uncertainty, however, about the nomenclature of the varieties. The progenitor of the group as it exists in America, is probably the *Cerise Hative* of the French a variety that dates back into the 16th century. This is the Kentish of the English, and, in all probability the (Early) Richmond of America. The Montmorencies are direct descendants of this variety, or of its progenitor C. Commune, but as the sorts have been grown under such widely differing environments, the varieties form a more satisfactory study for the plant evolutionist than for the systematic pomologist.

MORELLO GROUP.

This group, of which (English) Morello is the type, is variable. It is characterized by small trees, variable in form, often bushy, generally open; branches reddish-gray, often tortuous, slender, spreading or

drooping; foliage medium to small, ovate, short, stiff petioled, dark, usually subject to leaf blight; fruit very dark red or black, spherical to heart shaped; flesh and juice deeply colored, very acid often astringent; stems slender, 1 to $1\frac{1}{2}$ inches; ripening after the Montmorencies; bearing early in life; very hardy.

The Morello group is also an important pomological collection, chiefly on account of the (English) Morello variety. It has become much complicated by the renaming of the same variety in several sections, and by the practice of some nurserymen of sending out the same variety under several names. The group approaches the Brusseler Braune group through the Minnesota.

BRUSSELER BRAUNE GROUP.

This group, of which Brusseler Braune is the type, is characterized by large, upright, compact trees; branches long, slender, spreading or upright, sometimes drooping, with short nodes, light gray, with small very numerous whitish lenticels; foliage heavy, deep green above and much lighter beneath, though not as light as the sweet cherries, small, narrow, elliptical or obovate, finely serrate; fruit variable in size, round cordate, usually compressed, mostly dark red or brownish black, with colored flesh and juice; stems long, slender, often tortuous, $1\frac{1}{2}$ to $2\frac{1}{2}$ inches; bear late in life; often shy; very handsome and ornamental.

The varieties of this group were largely introduced by Prof. J. L. Budd, formerly of the Agricultural College, Ames, Iowa, in 1883, from Poland and the southern provinces of Russia. Most of them are of German origin. The nomenclature of the group is almost hopelessly confused. The varieties are mixed in American collections, many of them passing under several names. There is no European literature on some of the kinds, which are probably old sorts under local foreign names, or else local varieties. Nevertheless it is hoped that some light may be thrown on the varieties as they exist in America. The utility of the group is problematical. None of them are grown yet on a large commercial scale, and the differences of opinion regarding them make a more exhaustive trial imperative before an intelligent estimate can be made of the varieties. The group is best adapted to the colder regions of cherry growing.

VLADIMIR GROUP.

The Vladimir is one of the most distinct, though variable groups. It is of little commercial importance in the United States, but it is grown in a limited way in Canada. It is closely allied to the Brusseler Braune group, the Bessarabian forming a connecting link between the more spreading, upright Brusseler Braune and the more compact and drooping Lithauer Weichsel. As I do not possess an intimate acquaintance with it, I have asked Prof. John Craig, of Cornell University, who has had much experience with these recent foreign cherries, to characterize the group. The following outline is from Prof. Craig:

Tree variable in form and size; always strikingly compact. Prevailing type round-topped with drooping tendency. Leaves medium size, ovate, elliptical. Flowers small, fragile, pistils frequently defective and of varying lengths. Fruit borne in clusters of two to four, medium to small, slightly heart shaped, apex rounded, stem 1 to $1\frac{1}{2}$ inches long; color dark crimson, when fully ripe nearly black; flesh firm, meaty, deeply colored; flavor brisk acid with slight astringent quality; stone small, spherical.

MONTMORENCY.

The Montmorency cherries are among the most confused in pomological literature. According to several French authorities, two cherries originated during the reign of Henry IV, in the valley of Montmorency, France, probably as seedlings of *Cerise Hative*, which is called Kentish in England, and Early Richmond in America. These cherries differed from each other principally in their stems and fruit, one having a long stem and medium sized fruit, the other a short stem and large fruit. The first cherry is undoubtedly the Montmorency, called ordinaire, by error, in America; the second, the Gros Gobet, or Montmorency a courte queue, called Large Montmorency in America. These cherries have been grown in various environments which have produced slight variations, from which a confusion in synonymy has arisen.

In French literature, the Montmorency is known principally as *Cerise de Montmorency*, *Montmorency a longue queue*, and *Petit Gobet*. In England, it soon became confused with its parent, the old *Cerise*

Hative, called Kentish, from the county of Kent, England. It replaced the Kentish in many nurseries and collections, and in some literature, which probably gave rise to the common error of making (Early) Richmond or Kentish and the Montmorency synonyms. In America the Montmorency is known as Montmorency, Long Stemmed Montmorency, and Montmorency ordinaire, principally by the latter name. The termination ordinaire, however, from Duhamel to the present, is hardly known in standard French, German, or English pomological works. It is sometimes found in catalogues, but it has no definite pomological significance in Europe as it has been applied to the Kentish and to the Large Montmorency as well. Therefore, this term ordinaire, leads to confusion and should be dropped from American cherry literature. The Montmorency and the Montmorency ordinaire in America, as Bailey has intimated also, are the same cherry. The name extra-ordinaire has been applied also to the Montmorency, and to the Large Montmorency as well, but this term, like ordinaire, has no pomological significance.

Individual trees of Montmorency have given rise to variations which have received varietal names, as in the Monarch. A tree in a Montmorency orchard on the farm of M. J. Wragg, Waukeg, Ia., bore large fruit, which matured a little later, the tree being more open and vigorous. Stark Bros., Louisiana, Mo., were attracted by this tree, and, thinking that its individuality would be transmitted through its buds, propagated it, and called it Monarch. Sufficient time has not elapsed to determine whether the variation in this tree was inherent or accidental. I have examined the fruit and tree of the two forms from the same nursery and in these specimens I can detect no difference between them whatever, both ripening together. I therefore place it, for the present, as a synonym of Montmorency.

In the west, the Montmorencies are badly mixed, some nurserymen using the French names and others the English, while still others are selling the Montmorency under the name of Large Montmorency. I am inclined to think, however, that there is only one variety now grown commercially in America, the Montmorency (commonly called ordinaire), and that the confusion in its synonym has arisen through local variations to which various synonyms have been applied, to the careless interchange of synonyms for the same form, and sometimes through the change of the name itself as the Montmorency for Large Montmorency. This variety has been grown in America since the beginning of the century, and on account of its age it forms a fertile field for the study of the plant evolutionist.

While these local variations lead to confusion in systematic pomology, they are valuable acquisitions to the fruit grower, as one of the emphatic needs in America fruit growing is the development of varietal strains with local adaptations.

Description.—Round, broad cordate, medium to large; cavity medium; stem long and fairly stout, 1–1½ inches; suture distinct; color bright, light red; flesh light yellowish, tender, firm; stone small; juice abundant, colorless; flavor sub-acid, good; season, a week or ten days after Richmond; tree very vigorous, upright, vase shaped becoming spreading; profuse bearer. It is the most valuable variety of the Richmond group for the open market or for canning. Differs from Richmond in later ripening, larger, less acid fruit, smaller stone, longer stem, and finer quality.

Montmorency, large or large fruited, originated as a seedling of Cerise Hative in the valley of Montmorency, France; not grown commercially in America, and rare even in collections. It is a large variety with short thick stems, ripening after Montmorency. It was widely distributed by Ellwanger & Barry twenty-five years ago, but the variety proved too shy for commercial use. Large forms of the true Montmorency are often thought to be this variety, especially in the west.

De Candolle dignified the short stemmed, light juiced sour cherries with the Latin variety name gobetta, and Poiteau says that these short stemmed cherries seem to constitute a race with many similar varieties, characterized by trees of small stature and by other similar characters.

EARLY RICHMOND.

This variety was secured early in the century from Richmond, Va., by William Prince, of the Linnean Botanical Gardens, Flushing, N. Y., and was distributed widely under this name. The same kind has been grown in the west as Early May, where the flesh is more firm and meaty, and in the south as Virginia May. Prince considered it the

Kentish of England, under which name it has usually been ranked as a synonym by European and by some American authors. The figures of the Cerise Hative, or the French form of the variety, in Langley's Pomona, 1729, Duhamel's Traite des Arbes Fruitières, 1768, Kraft's Pomona Austriaca, 1792, are excellent representatives of our Richmond. In England the old Kentish has often been replaced by a modern Kentish, which is Montmorency, hence the confusion in the synonymy of these two kinds. Downing made Montmorency a synonym of Kentish. In France, Duhamel recognized a confusion between the C. Hative or Kentish and the Montmorency, and distinguished the latter especially by its longer stem.

The Richmond has been grown in this country from the time of the earliest settlers. It is considered by some European authors as a seedling of Cerise Commune, under which name a vast number of cherries were formerly grown near Paris.

Description.—Round-oblate or heart, medium to small, cavity narrow, rather deep; suture indistinct; color bright, light red, growing darker at maturity; flesh light colored, tender, soft, juicy; stone large; juice colorless, acid; quality poor; tree vigorous, upright, spreading, round headed; branches slender, becoming drooping. Largely used for canning, but not equal to Montmorency, except where an earlier cherry is the principal consideration. Ripens June 15th in Delaware.

MORELLO.

One of the oldest and most esteemed cherries in America, where it has been grown for a century or more. It is known as English, Large, Dutch, Ronald's Large Morello, and Milan. It is much esteemed for canning.

Description.—Fruit round, cordate, or heart shaped, usually compressed; size medium; cavity shallow; stem 1½ to 1¾ inches; suture indistinct; color dark red, nearly black when ripe; flesh deep red, tender, firm; stone small, slightly cling; juice abundant, red, very sour; poor quality for table, excellent for cooking; tree spreading, slender, becoming drooping; foliage subject to leaf blight; very hardy. Ripens a month after Richmond. Le Roy gives it as a synonym of the old Griotte a Ratafia (Grosse). This variety is greatly confused in some sections where it has received several different names. I have seen it in the collections of one of our experiment stations from a single nursery under the names English Morello, Suda, Northwest, Wragg, and Osteimer. The Suda or Suda Hardy, as sent out by nurserymen, cannot be distinguished from it. This so-called variety originated in the garden of a Capt. Suda, Louisiana, Mo., some years ago. There is no reason to believe that the old tree, which was then 22 years old, was not an (English) Morello. The Northwest is said to have originated with D. B. Wier, in Illinois, as the best of a large number of seedlings. I have not been able to verify the assertion, but as generally sent out by nurserymen at present it cannot be distinguished from (English) Morello in fruit or tree. The Wragg has been the source of much profitless discussion. As sent out by most American nurserymen it is the (English) Morello. This supposed variety originated on the grounds of M. J. Wragg, Waukeg, Ia., as a sport or a seedling amongst a lot of (English) Morello cherries said to have been purchased from Ellwanger & Barry some thirty years ago. It has been placed as a synonym by the American Pomological Society and by many leading pomologists. It is said by some reliable growers in Iowa to be larger in fruit, hardier in tree, and later in ripening, though in other respects like the Morello. There is so little difference in them that it may be classed as a synonym, but wherever a true difference is found, the Wragg ought to be preserved as a strain of the Morello. English Morello reproduces itself very closely in its seedlings, and it is possible that all of these named forms are of seedling origin. But for classificatory purposes they should be looked upon as one kind.

BRUSSLER BRAUNE.

Imported by Budd in 1883.

Description.—Fruit round, heart shaped, medium to large, a little larger than Montmorency, stem long, 2 to 2½ inches, slender, with leaflet usually attached, which is very characteristic of the variety; color dark red, nearly black; flesh red, firm, tender, acid; juice red, slightly astringent; quality fair; tree very vigorous and distinctly upright, spire or round headed. Ripens South Haven, Mich., July 18–25. Like the Be-sarabian it is an uncertain bearer. At South Haven, twelve year old trees have never borne more than half a crop, usually

much less. The leaves on the stem are objectionable, as they would have to be removed before the fruit goes into the market. This variety has been highly mentioned in recent years for general planting. The fruit, as I have seen it, is generally much smaller than represented. The variety is still in the experimental stage, and should be planted only for trial, except in those sections where its merits are thoroughly established.

HORTICULTURE AT THE PAN-AMERICAN.

One of the most elaborate exhibits of the kind ever collected may be seen in the Horticulture Building of the Pan-American Exposition, says the management.

The Horticulture Building is an exhibit in itself, being the handsomest temporary structure ever built for such a purpose. The approach to this building comprises an outdoor exhibit that is interesting and well worth a careful examination. From the Esplanade the approach curves past one of the elegant fountains, with its basins of aquatic plants, the pathway forming an incline that reaches to the magnificent eastern entrances of the building. This incline is bordered by many odd varieties of fruiting trees and shrubs, interspersed with massive vases containing beautiful tropical foliage effects as well as many odd bloomers and fruit plants that are unusual and seldom seen even in the greenhouses in the latitude of Buffalo.

Large as the Horticulture Building is, it will not contain all of the Horticulture exhibits, as many semi-tropical ferns, palms, and various other species of trees, vines, shrubs, and flowering plants are planted in different localities about the building.

Absence of straight lines in laying out the walks, with an apparent natural carelessness in connection with the whole plan, together with the blending of color with the quiet green grass plots, conspire together to render the surroundings of the Horticulture Building one of quiet beautiful significance. The area called the Music Garden contains about two hundred beds, aggregating over three hundred thousand square feet, comprising many different sizes and containing a great variety of flowering plants, which will be extremely gay with color during the Exposition.

One hundred and fifty thousand bulbs were planted last fall, consisting of hyacinths, tulips, narcissus, jonquils, Spanish Iris, etc. These bulbs are now bedecking themselves in the brightest and most gorgeous colors.

All these beds are filled with exhibits contributed by upwards of fifty of the leading horticultural firms of the country.

For exotic plants, conservatories have been provided in connection with the Horticulture Building; these conservatories are semi-circular in form, connecting the Horticulture Building with the Mines Building. Temperatures herein are suitable for the proper care of exhibits of tender tropical growths. Here as everywhere in this section of the Exposition, continuous attraction has been carefully considered and it will make but little difference whether the visitor inspects these collections in May, July or October, the contents of the conservatories will be exceedingly fine.

An interesting feature of the Horticulture Department will be the series of Flower Shows to be held from the opening day till the closing. The dates have been selected to suit the largest range of exhibitors, and are as follows: Pæonies—May 28 to June 7; Hardy Roses—June 18 to June 25; Sweet Peas—July 23 to Aug. 2; Gladiolus—Aug. 6 to Aug. 17; Asters

—Aug. 27 to Sept. 7; Dahlias—Sept. 17 to Sept. 27; Chrysanthemums—Oct. 22 to Oct. 31.

In the Horticulture exhibit many odd varieties of fruits are shown from many different countries, green fruit exhibited preferably in its natural state relays, being carefully preserved during the whole time in cold storage to replace defective specimens on the trays as they decay. Where this is not practicable preserved fruits, both desiccated and in liquid are shown instead. In some instances manner of cultivation as well as products are shown in connection with the exhibit, as the management has made each exhibit as elaborate as possible.

Many of the foreign exhibits appear odd and interesting and no doubt will lead to commercial results of more than ordinary importance.

Long and Short.

Hedge plants can be had of J. A. Roberts, Malvern, Pa.

Raffia can be obtained of Thomas Meehan & Sons, Germantown, Pa.

Labes form the burden of the song of Benjamin Chase, Derry, N. H.

A full line of general nursery stock at R. H. Blair & Co.'s, Kansas City, Mo.

H. M. Simpson & Sons, Vincennes, Ind., is headquarters for peach, apple, cherry, etc.

Apple seedlings, northern grown, are a specialty with W. H. Kauffman, Stratford, Ia.

August Roelker & Sons, 52 Dey street, New York, agents, have a large stock of raffia and fruit stocks.

J. G. Harrison & Sons, Berlin, Md., have an unusually attractive announcement this month on outside cover page.

D. H. Patty, Geneva, N. Y., have standard pears, dwarf pears, plums, peaches, berries and Kilmarnock willows.

Hardy American plants and Carolina mountain flowers are for sale by Harlan P. Kelsey, Tremont building, Boston, Mass.

Fruit tree stocks are offered in large assortment by C. C. Abel & Co., Box 920, New York, agents for P. Sebire & Sons, Ussy, France.

Brown Brothers Company, Rochester, N. Y., offer apples, pears, cherries, plums, ornamental trees and shrubs, evergreens, perennials, etc.

Wanted: Cherries, standard pear, dwarf pear, plums, peaches and quinces—at A. Willis's Nurseries, Ottawa, Kan. He has apple, grapes and apple seedlings.

The Snow Hill Nurseries, W. M. Peters & Sons, Wesley, Md., have peach, apple, grape vines, asparagus roots, strawberry plants and peach and apple buds in quantity.

The Painesville Nurseries, Storrs & Harrison Co., Painesville, O., stand at the head in acres of land and greenhouses, storage cellars and packing houses, amount of stock handled and variety of stock grown. See their announcement for fall.

BUSINESS AT VANCOUVER.

M. J. Henry, Vancouver, B. C., writes under date of May 14, 1901:

"I enclose renewal of subscription for one year. Business has been extra good this spring. Sold entirely out of every two year apple tree in my nursery—and had to fall back on one year olds to fill orders—we are doubling up our spring planting. Have added seeds to my nursery business and had very satisfactory spring sales in that line."

THE KEW GARDENS.

Nurserymen continually read and hear of the famous Kew Gardens in England. These gardens were described entertainingly by Benjamin P. Ware in a paper read recently before the Massachusetts Horticultural Society. Mr. Ware said :

Kew Garden was originally a private fruit and vegetable garden of seventeen acres, belonging to the Prince of Wales, the father of George III., who began to improve it as a botanical garden and pleasure ground in 1730. It has received additions from time to time, so that at present it contains 270 acres. It became public in 1840, and was placed under the control of Her Majesty's Office of Public Works, with an annual appropriation for its maintenance of £32,650, or \$163,250. It is said to be the finest and most complete botanical collection and arboretum in the world. As for tree planting it can hardly be excelled.

Kew Garden is accessible by steamboat, omnibus or steam railroad. It is seven miles from the center of London; the surface is undulating, with carriage drives around and through the grounds; with broad gravelled walks in various directions, opening long vistas through well-grown trees—some in rows, but generally irregularly planted with plenty of room for the full development of each tree. Every variety of tree, shrub and herbaceous plant is plainly labeled. It was intended that every variety that will grow in that climate should be represented in its very best possible condition, and as the winters in England are much milder than ours in New England, many more varieties may be grown there than here.

It is very delightful, when traveling in a strange land, to meet anyone from your own country, even though an entire stranger at home, and I found it even so to see in this collection of specimens our beautiful white pine, hemlock, spruce, elm, mountain ash, white ash and oaks, and among the herbaceous plants, our fall asters and goldenrod in variety and many other familiar friends, not excelled in beauty by those of any other country.

As tree planting there began more than one hundred and fifty years ago, some of the trees are very large; among these are a dozen or more cedars of Lebanon of immense size, four or four and one-half feet in diameter. As they stand well apart and were allowed to branch near the ground, they grew in a form peculiar to that species; with their deep green, compact foliage and majestic forms, they readily command the attention and respect given to this tree by early scripture writers, who frequently used the cedars of Lebanon as symbols of strength, beauty and grandeur.

Near the group of cedars in the garden is an immense Scotch pine, towering above all others, with a clean trunk, about one hundred feet to its first branches.

The shrubs are in such great variety, so well grown and plainly labeled that they afford a superior opportunity for study. Rhododendrons are especially fine here, and a collection of over 6,000 flowering hardy herbaceous plants, embracing more than a thousand varieties, may be seen—among them the original wild chrysanthemum brought from China 105 years ago. It was first introduced into Europe, making our magnificent chrysanthemum shows possible, as well as the one held last November at the Royal Aquarium in London, when its small yellow flower was shown in contrast with the latest triumph of the florist—a flower fifteen inches in diameter.

A very noticeable structure in the garden is the Chinese pagoda, built in 1761, the grounds around it so laid out that it may be seen directly in front from several points, through long irregular lines of trees. Another very prominent object is the flagstaff, a single spar of Douglas pine brought from Colorado, supposed to have been 250 years old. It is 163 feet high, with twelve feet under ground, enclosed in solid brickwork, to insure its security from wind and decay.

The Palm House is probably unequaled in beauty and grandeur the world over. It is 362 feet long, with an ell on each side, and is filled with a great variety of palms and other plants requiring the same conditions, many grown as high as the top of the building, and all in perfect condition. The Horticultural Museum is a large three-story brick building containing an herbarium library and many horticultural curiosities of interest. Between these two buildings is a very beautiful

artificial pond which makes a frontage for each building. Around this pond are beds of flowers of the most brilliant and showy kinds.

There is a Wood Museum containing specimens of wood from all of the British colonies and other countries; also seventeen or more green-houses adapted to the needs of different families of plants, one of them devoted to exotic water lilies, among which the *Victoria regia* is prominent. Another is devoted to the citrus family of fruits and another to the cactus in great variety.

A portion of the grounds is set apart as a wild garden, with a perfect tangle of trees, shrubs and herbaceous plants, without order or design. The collection of Marianne North's paintings of flowers, containing 833 pictures, is arranged in a brick building provided especially for it, adding very much to the interest of the garden.

Where there are no flower beds the surface is a beautiful English lawn, such as we have often read of—so closely shorn, so green, so soft is it, that one is reminded of a velvet carpet. The signs are not "Keep off the grass," but "Please do not tread upon the edge of the grass." When any portion of these lawns shows signs of exhaustion the sod is carefully removed, a heavy coating of old stable manure forked in, then the sod is replaced so carefully that no sign of its removal is noticed.

Kew Garden is so accessible, so beautiful and so instructive that it is not surprising that from 60,000 to 80,000 people visit it during the season annually.

FUMIGATING BUDS AND SCIONS.

A correspondent of the *American Agriculturist* writes :

As a nurseryman I am interested in the system of fumigating buds of new varieties for propagation. As I understand, buds cut from trees in July, August or September, cannot be fumigated with safety for fear of injuring them. I ask you, therefore, for advice and would like you to suggest methods for the fumigation of scions, buds, etc., such as nurserymen are obliged to procure. Since it is assumed that there is a possible danger of San Jose scale from almost any nurseryman, this question is of vital importance to us.

The answer by W. G. J. as follows :

Buds, cuttings, scions, etc., can be fumigated in a satisfactory manner during the season indicated above, if the proper precautions are taken in the preparation of the gas. Under no circumstances should it be used on nursery stock of this character stronger than 0.16 to 0.18 gramme cyanide per cu. ft. of space inclosed and exposed from twenty to thirty minutes. If the buds are properly handled and fumigated with gas at this strength there need not be any fear of injury to even the most delicate varieties. Many nurserymen throughout the country practice regularly the fumigation of all buds before putting them in the nursery. Small boxes, containing from 25 to 50 cubic feet can be used to good advantage for handling nursery stock used for propagating purposes. The chemicals should be handled with great care, as the amount used is exceedingly small and the slightest disturbance would interfere with the results. As a rule, chemicals are placed in a small earthen vessel, such as a teacup or small bowl, the cyanide being weighed carefully by a druggist and placed in small capsules ready for use. The acid and water can be measured by the nurseryman.

STOCK ON THE JUMP IN MISSOURI.

F. A. Weber, Nursery P. O., St. Louis Co., Mo., writes : "We have had a splendid season here, and are well satisfied with the returns. We are now enjoying the finest kind of weather, which is making stock 'fairly jump,' in fact, you can almost see stock grow. We have peach and pear buds 10 and 12 inches high, where 14 days ago there was hardly a sign of a sprout."

LUKE BROTHERS COMPANY, MONTREAL, May 10, 1901 :—"We have yours of the 9th inst., reminding us that our subscription to the *NATIONAL NURSERYMAN* expires with the May issue, and we enclose you herewith our renewal order, accompanied by \$1 cash. The journal is all right, and fully merits our aid and support."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	- - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Theodore J. Smith, Geneva, N. Y.; vice-president, N. W. Hale, Knoxville, Tenn.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Irring Rouse, Rochester, N. Y.; C. L. Watrous, Des Moines, Ia.; E. Albertson, Bridgeport, Ind.

Committee on Transportation—Theodore J. Smith, ex-officio, chairman; A. L. Brooke, N. Topeka, Kan.; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.

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Committee on Tariff—Irring Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1901—At Niagara Falls, N. Y., June 12-13.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JUNE, 1901.

RATES TO THE CONVENTION.

All who expect to attend the annual convention of the American Association of Nurserymen at Niagara Falls on June 12th-14th will be interested in the fact that the executive committee is of the opinion that a better railroad rate than a fare and a third can be obtained.

The following circular letter was issued on May 18th by the secretary:

When reduced rates were arranged for the approaching convention of the American Association of Nurserymen, at Niagara Falls, June 12, 13, 14, it was thought that the Pan-American Exposition at Buffalo might result in a better rate than the fare and one-third given under the certificate plan. We did not think best to rely on such a condition however, and our application for a fare and one-third rate to Niagara Falls was granted. Already, however, railroads have announced special rates on account of the Pan-American in many cases better than a fare and third.

In response to many requests the executive committee have deemed it best therefore to instruct all members to secure the best rates possible

by personally arranging with their respective local ticket agents or passenger officials. It is not thought that it will be possible to secure one hundred certificates under existing conditions, therefore all members are to disregard instructions regarding Certificate Plan contained in former circular. Obtain best rates possible to Buffalo. Some of the railroads pass through the falls; if not, it is but a short distance by steam or electric line from Buffalo.

The Central Passenger Association has announced the following rates on account of the Pan-American Exposition and the attention of all who can profit by them is called specifically to the provisions:

Fare and one-third for round-trip going and returning same route, continuous passage in each direction, ironclad signature tickets requiring deposit and validation by joint agency at Buffalo, to be sold during the period June 1, to October 31, 1901, inclusive, with limit of 15 days including date of sale.

One fare plus \$1.00 for round trip, going and returning same route, continuous passage in each direction, tickets requiring validation by joint agency at Buffalo, good going date of sale only and good leaving Buffalo up to midnight of tenth day from and including date of sale, to be sold each day during the period June 1, to October 31, 1901. Such rates not to apply from points adjacent to Buffalo where \$1.00 added to one fare will create an abnormal rate.

On all through tickets reading east of Buffalo, privilege of stop-over for ten days may be granted at Buffalo, by deposit of ticket with joint agent at that point and payment of fee of \$1.00.

No stop-overs en route within Central Passenger Association territory shall be allowed purchasers of Buffalo Pan-American Exposition tickets.

The joint agency for the deposit and validation of tickets issued on account of the Pan-American Exposition will be located at 50 Exchange street Buffalo. It will be conducted by Harry T. Smith, joint agent, and all tickets will be executed in his name.

Tickets to be printed on Association safety paper of the quality used in the samples, with the following distinctive colors:

Fare and one-third, 15-day limit.....WHITE.

One fare, plus \$1.00, 10-day limit.....PINK.

It is believed that in a majority of the cases the rate of one fare plus \$1.00, ten day limit, will be the most advantageous. Therefore the executive committee decided to withdraw the certificate plan rate of one fare and one-third, although it will be noted that the latter rate gives a time limit of fifteen days.

ORIGIN OF THE BEN DAVIS.

It seems that there have been three men named Ben Davis, and that each one of them did originate a Ben Davis apple, says T. E. Shelton in Arkansas Fruit Grower. The information I have concerning the origin of that famous apple was from the lips of my friend, John S. Downer, originator and proprietor of the Forest Nursery, Todd county, Ky. Mr. Downer was a man well educated, especially in horticulture. He was a life member of the Horticultural Congress and an expert in nomenclature of apples.

When Mr. Downer decided that the nursery should be his leading business he would travel over the country in the fall season and collect specimens of choice apples and take cuttings from the trees to propagate, and the people would carry and send to him such as they thought extra fine. It was in this way that the Ben Davis came into his hands, and as soon as he saw it he determined to find its origin. By diligent inquiry he learned that it was in Butler county, the county in which W. S. Taylor, the famous governor of Kentucky was born and raised.

Mr. Downer mounted his horse and rode until he came to the place where the large red apple grew. He found it on a

poor farm whose owner was an old gentleman named Ben Davis, who raised apple trees and sold to his neighbors in a small way. He had no name for the apple in question, and Mr. Downer named it for the man from whom he had obtained it. He said Mr. Davis claimed to have raised it from a seed. There is some question as to who is the originator of the Ben Davis apple, but to my mind there is no question as to its being the greatest money-maker, and one that adapts itself to all soils and is so generally popular for an apple of poor flavor and not a very good keeper.

SOCIETY OF AMERICAN FLORISTS.

The Society of American Florists and Ornamental Horticulturists was incorporated in Washington, D. C., on May 14th, under a national charter, "a privilege and a franchise hitherto so jealously guarded by Congress, that the societies possessing these can be numbered on the fingers of one hand," says the Florists' Exchange.

The date of the annual meeting was fixed for the third Tuesday in August, at Buffalo, N. Y. The officers elected to manage the affairs of the society until the first annual meeting are: President, Patrick O'Mara; first vice-president, Wm. F. Kasting, Buffalo; secretary, Wm. J. Stewart; treasurer, H. B. Beatty; executive board, Messrs. J. F. Sullivan, A. H. Cartledge, J. D. Carmody, Alex. Wallace, Richard Witterstættner and Emil Buettner.

Provision was made for an exhibition to be held, whenever practicable, at each annual convention, of materials and manufactures used in and products of horticulture.

NOTED FRUIT SECTIONS.

An exchange has the following regarding the fruit sections of the United States of national reputation: First, the greatest fruit producing section is southern California, with an output of citrus fruits, oranges and lemons, for the year beginning November 1, 1900, of a minimum estimate of 18,000 cars and a maximum estimate of 23,000 cars. Probably 20,000 cars is about the right figure.

The second largest single fruit producing section is the Chautauqua-Erie grape district with a total output in 1899 of 8,000 cars. This includes fresh grapes and grape juice but not fermented wine. This district includes parts of two counties in Western New York and one county in Northwestern Pennsylvania.

Third in rank in fruit shipments is the prune output of California which for 1899 was 5,711 cars of ten tons each. Following this, an industry only sixteen years old, is the California raisin industry which in 1899 amounted to 3,578 cars.

The largest single strawberry section is in Northwestern Arkansas, and Southwestern Missouri. We cannot give the total cars. One county in Virginia and Oswego county, New York, are also strawberry centers of national reputation.

The largest single peach orchards are found in Northern Georgia, but the total output from the state will not equal that from Michigan, the southern part of the state taking the lead, St. Joseph and Benton Harbor being leading shipping points.

In apples, a few counties bordering Lake Ontario, have perhaps the largest output, although the largest single apple

orchards are found in Western Missouri and Eastern Kansas.

Pears, plums, and quinces do not seem to be exclusively grown in any one section to the extent to give that section a national reputation. New Jersey and California are each large pear growers.

OFF FOR MEDITERRANEAN COUNTRIES.

George C. Roeding, of the Fancher Creek Nurseries, near Fresno, says the California Fruit Grower, the gentleman who offers a substantial cash prize for a suitable and acceptable name for the California Smyrna fig, the maturing of which variety in this state was made possible by his investigations and experiments, backed by the United States Department of Agriculture and the latter's importation of the blastophaga, left on Wednesday of this week for an extended trip through the fig growing countries bordering on the Mediterranean, taking in portions of Europe, Africa, and Asia. He will be absent some five or six months, and undertakes the trip in order to learn more regarding the Smyrna fig and its culture, caprification and the method of gathering, curing and packing the crop, etc. Mr. Roeding will travel as a commissioner of the United States. In his absence Mr. Roeding's business interests will be in charge of his brother.

MARYLAND PEACH GROWING.

H. P. Gould of the Maryland Experiment Station, in a recent bulletin, gives the following information regarding peach growing in that state:

It is impossible to form an accurate estimate of the extent of peach growing in this state; but from data that has been collected, some conception can be formed of its present magnitude. The bulk of the peach crop is produced in five counties—three Eastern Shore counties and two Western Shore. As nearly as can be determined, the following figures represent the extent of the industry in the various counties: Washington county, 1,000,000 trees; Kent county, 450,000 trees; Caroline county, 450,000 trees; Anne Arundel county, 300,000 trees; Queen Anne county, 300,000 trees; all other counties, 500,000 trees; total, 3,000,000 trees.

There is nothing stable about peach growing. There are sections in Maryland once famous for great production of fruit, that now possess only here and there a dilapidated orchard. In all of the extensive peach growing sections of the state, the industry is even now waning. Tens of thousands of trees have been rooted up within the past six or eight years. At the same time the industry is being gradually developed in new areas with good prospects of success.

D. C. Rupp, of H. S. Rupp & Sons, Shiremanstown, Pa., has bought "The H. S. Rupp estate's" interest of the Cumberland Nurseries, of which he was a half owner. He will control the whole business as the sole proprietor. The address has been changed from H. S. Rupp & Sons, to D. C. Rupp. This firm did a good business this spring. They have sold out of nearly everything except Norway maple and apple.

W. B. WHITTIER, SOUTH FRAMINGHAM, MASS., May 10, 1901:—"I consider the journal valuable, and don't want to discontinue it. Enclosed I hand you \$1 for another year."

GEORGE A. SWEET, DANSVILLE, N. Y., May 20, 1901—"Enclosed find draft for \$1.00 in payment of above. We enjoy and profit by the NATIONAL NURSERYMAN and 'can't keep house without it.'"

Foreign Notes.

Fire destroyed 1,000,000 plants and did other damage, amounting to \$5,000, in the nurseries of James Smith & Sons, Darley Dale, Derbyshire, England, on May 2d.

The Royal Horticultural Society has rejected a proposition to purchase for a new garden 48 acres in the county of Kent. The subject has been the principal topic in English horticultural society for a month.

Agricultural research and education is assisted in the United States by Federal grants to the extent of £700,000, in Canada by £156,000, in France by £152,460, in Württemberg by £65,000, and in England by £15,000.

Sir George King, late director of the Royal Botanic Garden, at Calcutta, the first botanic Knight of India, on May 24th, the anniversary of the birth of Linnaeus, received the medal given by the Linnean Society annually to a botanist or a zoologist alternately.

On May 16th the bands under direction of the London County Council commenced their musical season in fifty-seven parks and open spaces, discoursing music for three hours every evening except Saturdays £10,000 has been devoted to the maintenance of these bands during the summer.

At a general meeting of the Royal Horticultural Society, held on Tuesday, April 23, fifty-two new Fellows were elected, making three hundred and forty new fellows elected since the beginning of the present year—amongst them being the Duchess of Abercorn, Lady Henry Tate, Lady Helen Vincent, Lord Alverstone, the Bishop of Richmond, and the Right Hon. A. H. Smith-Barry.

P. Rudolph Barr discussing the subject, "Naturalization of Bulbs Under Grass" at a recent daffodil conference in England explained why daffodils do so well in grass, and fail in the cultivated border. This was ascribed by the speaker to the more equable and cooler temperature, to the arrested evaporation, to the fact that the soil was not so liable to be lifted by frost, to the retention of moisture for the benefit of the bulbs when these most required it, and further to the grass imbibing all the moisture in the summer when it was not wanted by the bulbs. Daffodils in grass, asserted the speaker, were advantageous in all gardens, but especially in those having broad slopes of strong, fairly moist soil. Here the bulbs grew vigorously, and multiplied with great rapidity.

Discussing the status of the Royal Horticultural Society, the Gardeners' Magazine, London, Eng., says of the work of the last fifteen years: "To briefly summarize what has been accomplished in the pursuance of a strictly horticultural policy: (1) The debt of £1,152 has been discharged; (2) the annual income has been increased to £8,193; (3) the Journal, which had fallen into abeyance, has been revived; (4) a sum of £10,237 has been invested, exclusive of the £2,122 of the Davis and Parry Trusts; and (5) the roll of Fellows has been increased to 4,700, of whom only 250 are life Fellows under the old régime. These figures if they have any value teach us that to maintain the society in its prosperous condition it must continue its horticultural work under conditions that permit of its successful accomplishment."

Recent Publications.

No. 9 of Vol. XII of the Experiment Station Record has been issued by the U. S. Dept. of Agriculture.

The New York State Museum bulletins, department 1900, and March, 1901, treat of insects of New York state.

Professor L. H. Bailey will edit the new magazine, American Country Life, to be published by Doubleday, Page & Co., New York, and which will make its appearance early in the coming autumn.

The Year Book of the U. S. Department of Agriculture for 1900, soon to be issued, has in addition to the report of the secretary and the appendix, thirty one articles, five more than last year. Every article, except those prepared in the Division of Publications, covers some important line of work carried on in the bureau, division or office from which it emanated.

George Hansen, Berkeley, Cal., in advocacy of the children's garden, has published a monograph entitled "What is a Kindergarten." Mr. Hansen's landscape studies were made in the parks of Berlin, Potsdam, Muskau, Cassel, Hamburg, Magdeburg, Hanover, and those in Yorkshire and in the South of England, from London to Bristol. He has watched Nature's way in the forests of Silesia, Thuringia, Harz, Rügen, and in the Coast Range and the Sierra Nevada of our California through eight seasons' exploration.

Volume III. of the "Cyclopedia of American Horticulture," edited by Prof. L. H. Bailey, assisted by many expert cultivators and botanists has been issued by the publishers, The Macmillan Company. We have referred to this as a monumental work, and each volume as it appears, bears out the assertion. The cyclopedia cannot fail to be of the greatest practical value to nurserymen from whom a vote of thanks to Prof. Bailey and his assistants is due. The volume just issued comprises subjects from N to Q inclusive. Prof. Bailey himself has written the article on "Nursery" in which he says: "The largest nursery center of North America, considering the number of persons engaged and the variety of stock grown, is Western New York. The headquarters of this industry is Rochester. Nearly one-ninth of all the nurseries enumerated in 1890 were in New York State, and these establishments employed a capital of over \$12,000,000. Very extensive nursery enterprises are now established in many other parts of the country, and it is probable that the center of the nursery business will move westward." At the close of this article on "Nursery" Prof. Bailey alludes to the one periodical devoted to the nursery business as "The Practical Nurseryman" published at Rochester. Of course he means the NATIONAL NURSERYMAN and will correct the error in future editions. As showing the completeness of the cyclopedia, seventeen columns are devoted to nymphaea, the same number to opuntia, thirty columns to the peach, eighteen to the pear, etc. The horticultural capabilities of the Philippine Islands are discussed in an illustrated article by Dr. S. A. Knapp, of the United States Philippine Commission. Horticultural photography is described by J. Horace McFarland; plant breeding by Herbert J. Webber, who is in charge of the plant breeding laboratory, Division of Vegetable Physiology and Pathology, Department of Agriculture, Washington, D. C. The article on "Plum" is by F. A. Waugh, of course; an acknowledged authority. Prof. John Craig, of Cornell University, contributes the article on "Pomology." Porto Rico as a field for horticulture is described by F. M. Pennock, horticulturist at San Juan, Porto Rico, and notes on the same subject from census reports are appended. Sketches of the Messrs. Prince who conducted the first large commercial nursery in America are contributed by L. B. Prince, Mesilla Park, N. M. Pruning is treated by Prof. Bailey, whose ability to discuss this subject is well known. The important article on "Prunus" is also by Prof. Bailey whose initials are likewise appended to the article on "Pyrus." Alfred Rehder, assistant at the Arnold Arboretum, Jamaica Plain, Mass., contributes eighteen columns on "Quercus" and Prof. Craig discusses "Quinces." The pictorial character of the cyclopedia is notable. There are over two thousand illustrations, all made expressly for this work from accurate photographs or from specimens. The cyclopedia has the unique distinction of presenting for the first time, in a carefully arranged and perfectly accessible form, the best knowledge of the best specialists in America upon gardening, fruit-growing, vegetable culture, forestry and the like, as well as exact botanical information. It is all fresh, and not a rehash of old material. No precedent has been followed; the work is upon its own original plan. In four quarto volumes. Volume IV. in press. Sold by subscription only. Cloth, \$5 per volume. New York, Boston, Chicago, San Francisco, London: THE MACMILLAN COMPANY. Rochester: SCRANTON, WETMORE & COMPANY.

ROBERT C. UECKE, HARVARD, ILL., May 10, 1901:—"Enclosed please find \$1 for one year's subscription to your paper. I depend upon the NATIONAL NURSERYMAN for keeping in touch with the trade."

FRESH FRUITS AT PAN-AMERICAN.

When the Pan-American Exposition was opened, 3,200 plates, embracing 345 varieties, of apples were displayed. Cold storage had preserved the fruit in practically perfect form. Among the largest exhibitors are Ellwanger & Barry, Rochester, N. Y.; S. D. Willard, and E. Smith & Son, Geneva, N. Y.

H. E. Van Deman says in the American Agriculturist: There will be at the Pan-American Exposition during the entire summer and fall a continuous exhibit of fresh fruits. These will be from all parts of the United States and other parts of this hemisphere, as far as it is possible to get them in good condition. Already many tables are filled from Oregon, California, Maine, and Florida. The exhibit of berries from the central states will be exceptionally fine. Apples from the crop of 1900 in cold storage will be shown by some states during the entire season.

Florida will show a splendid lot of pineapples of many varieties grown there, both on open ground and under sheds. Plants are already on exhibition with the growing fruit on them, which is something rarely seen by those who do not live in the tropics. This exhibit will be replenished from time to time, so that it will last all season. Tropical fruits, such as the sapodilla, guava, cherimoya, avocado, and many others will be on the tables from Florida and California. There are four large cocoanut trees in the center of the horticultural building, I got recently from the edge of Biscayne Bay in southern Florida.

The collection of fresh fruits of this year's crop from about all of the states will furnish a rare opportunity to those who wish to see just what character of apples, pears, peaches, etc., are grown in each, and how they compare with each other. The ornamental displays on the grounds are already so beautiful that many good judges have said that the like was never seen in the way of tulips, hyacinths, and other spring bulbs. In June, the roses will be a great attraction. There are several large collections that are in most excellent condition for blooming. The display of fancy evergreens and herbaceous perennials, such as phloxes, peonies, cannas, etc., will be exceptionally grand.

RAFIA FIBRE IN MADAGASCAR.

Rafia, or as it is generally spelt, "rafia," is the Malagasy name of a palm which furnishes a staple article of commerce, called rafia fibre says the Journal of the Society of Arts. It is indigenous to Madagascar, and it is to be met with everywhere on the coasts, needing neither cultivation nor attention of any kind. It is not a stately palm, but sends its enormous branches from near the ground; in a fine specimen one branch is almost a tree in itself. The rib in each branch is as much as 20 feet long, of a pearly grey color, smooth and shiny, flat on the inner surface, but otherwise round, without any knobs, and so exceedingly hard. At the base it is as large as an ordinary champagne-bottle, and tapers to a point at the top. The inside consists of a light pith, which can be split into layers of any thickness. Possibly, says the United States consul at Tamatave, it is this, or an analogous production, which is used for making pith helmets in the East. Naturally these ribs combine great strength with wonderful lightness, and are used for shafts for "filanjanas" or palanquins, ladders, or other

purposes, but otherwise have no particular commercial value. It is the pinnate leaves which produce the rafia fibre of commerce. One palm frond will produce eighty or one hundred long green leaflets, from 2 to 5 feet in length, like the leaves of the sugar-cane, but of a dark, lustrous green, and both thicker and stiffer. These again, contain a round and pliant rib, which the natives utilize for making baskets and dredges for catching small fish and shrimps in the rivers after they have stripped off the green part which furnishes the fibre. The under part of this green leaf (which is not exposed to the light, as it remains folded), is of a pale greenish-yellow color, and from that side the inner skin can be peeled off in the same manner as the skin on the outside of a pea-pod, except that it peels off straight to the tip without breaking. It is then of the palest green, and after being dried in the sun assumes a light straw color.

This is the rafia fibre of commerce. It was originally sought for by the natives for use in articles of clothing. The men bring in the fronds, and women and girls weave it on hand-loom, of any coarseness or fineness. Woven just as it is peeled off from the fronds, it forms a kind of sacking used for wrapping goods, while the perfection of the art, as known by the Hovas only, is to weave a tissue of which the warp is rafia fibre split very fine, and the weft of white silk. This gives an article called silk lamba, which fetches fancy prices in Europe and America. The coast tribes use it for clothing, but of moderate fineness, with dyed stripes of indigo, saffron, black, and a dirty green. It is a cold, comfortless looking material, and refuses to adapt itself to any folds that a sculptor would care to copy.

Rafia fibre is used in Madagascar by nurserymen, gardeners, &c., for tying up vines and flowers, and possibly for grafting. It possesses the advantage of being as soft as silk, and is not affected by moisture or change of temperature so as to risk cutting or wounding the most delicate tendrils, and it does not break or ravel when folded or knotted. These qualities bring it into use all over Europe, and consequently maintain its price. It is virtually inexhaustible in Madagascar, the supply being limited only by the scarcity of labor. For export the fibre is merely collected in large skeins, twisted up or plaited, and then baled like raw cotton, Madagascar exports about 20,000 bales annually.

VEITCH MEDALISTS.

The American holders of a Veitch memorial medal are Prof. Chas. S. Sargent, 1896; Prof. Liberty H. Bailey, 1897; Thomas Meehan, 1901. The Veitch memorial is a trust fund raised by subscription to the memory of J. G. Veitch, the famous English nurseryman and plant collector. For many years after its foundation the income was devoted solely to giving medals and cash prizes at the leading exhibitions, but it came to be felt that there were outside the ranks of exhibitors men worthy of honor, and so the system of bestowing medals honoris causa was adopted.

DES MOINES NURSERY COMPANY, DES MOINES, IA., May 11, 1901:—
"Enclosed please find our check for \$1 for our subscription to your paper. There is no paper comes into our office which is read with more interest than your publication and we can assure you of our hearty support."

In Nursery Rows.

CHESTNUTS MISSING—Samuel Miller, Bluffton, Mo., writes as follows to Colman's Rural World: A subscriber writes to me that the Paragon chestnuts he got of me last fall and planted are not where he planted them. I can whistle to the same tune. Last fall a half bushel was planted in nursery rows, six inches apart and two inches deep. On reading of his loss it occurred to me to examine mine. Not ten per cent are to be found. Whether mice or squirrels, or both, got them I cannot tell, but gone they are. Hereafter, if any are put in, they will be put in boxes in sand and protected.

NEW APPLE—A Charlevoix, Mich., correspondent of the Rural New Yorker says: "I am the ardent champion of fine-flavored fruits. Nurserymen often fail to grow deserving varieties because they do not make straight young trees, so they do not deliver well. The Mann apple is a well known instance of a very poor apple sent all over the land for the reason, as I happen to know, that the young trees grew straight and "delivered well." Good quality is the only criterion of merit. Last autumn, while gathering a collection of 100 varieties of Winter apples for an exhibit of northwestern Michigan fruits at the Pan-American Exposition, I found a Kalkaska County apple I named Wolverine, which is the greatest hustler and barrel-filler of any apple I know. It was first spoken of in public and exhibited at Michigan State Fair in 1900. It bloomed at four years from seed, and has been heavily loaded every year for sixteen years without fail, and with its cloud of big leaves and large white blossoms, it gets there in spite of cold weather, having passed through 40 degrees below zero unharmed. This and another new variety will probably be exhibited at Buffalo.

CROSS-BREEDING APPLES.—For fifty years or more the best and most attractive Newtown Pippins grown in America came from Croton Point on the Hudson and brought almost fabulous prices in England, one shipment clearing as high as \$18 per barrel, says American Agriculturist. Some twelve or fifteen years ago S. W. Underhill, of Croton Point, noticed that the constitutional vigor of his trees was waning and he concluded that the only way to perpetuate the excellencies of the Newtown was by reproduction from seed. Out of hundreds of barrels he selected a peck of the most perfect specimens, and from the seeds of these he raised a considerable number of seedlings. In addition to this he grafted in the tops of some Newtown trees, Northern Spy, R. I. Greening, Russet and other varieties. These different kinds were allowed to grow together and cross fertilize naturally; in other cases artificial cross pollination was practiced. Contrary to the theory held by many that cross-pollination has no direct influence on the fruit, but only on its seed, Mr. Underhill soon noticed that some of the Newtowns had clearly marked characteristics of Northern Spy, others of Rhode Island Greening, and still others of Russet. The seeds of these characteristic specimens were planted in nursery rows, where they were left to grow without any special care. Finally they were planted out in poor, sandy land and left to themselves. Two years ago several of them produced their first fruit. At the Eastern Horticultural Society meeting in New York city, specimens of these cross-bred apples were highly praised.

HEDGES.—C. L. Zimmerman, Buffalo, N. Y., discussing hedges, in American Gardening says: "For a farm hedge that will turn cattle I know of no better than the Honey Locust. It is of rank growth and requires much trimming to keep it in bounds. The plow should not be allowed to cut its roots or it may sucker. Osage Orange comes next, but is not quite hardy. Our common wild thorn can be tamed into quite a fair hedge and the grafted varieties are beautiful when in bloom. Japan quince does finely as a garden fence, and like the thorn is very fine in bloom. Both lose their leaves early. For tall hedges the Norway Spruce is unsurpassed. A vertical wall twelve feet high can be grown in six years, planted four feet apart and not cut back until the desired height is obtained. Many gardeners are reluctant to trim the spruce, but it stands trimming as well as any hardy plant does, and forms a very dense hedge. Our common Hemlock is by far the most beautiful and graceful of all evergreen hedge plants. It should be allowed to grow very wide at the base so as to provide shade for its own roots. Height can be grown later. It stands shearing like sheep. The Arbor Vitas are very useful hedge plants, requiring less shearing than the preced-

ing to make them thick and bushy. Red spider often makes them look rusty in dry seasons, but this can be overcome if there is plenty of water available for sprinkling the foliage. The list of evergreens suitable for hedges is quite long and the gardener may avail himself of the many different shades to bring out color effects. Of the deciduous plants the Privet comes next to being an evergreen, usually remaining green till Christmas, often later. The California Privet is of wonderful growth, not perfectly hardy, but nearly so, and for an all-around hedge plant has many points in its favor. It is becoming very popular in cities, and deservedly so, as there are few bad things to be said against it. Planted in single or double rows, six to nine inches apart, and not allowed to grow upwards until a good broad bushy base has been obtained, a perfect hedge may be hoped for. And this is the vital point in growing this and most other hedges. A bushy base can never after be obtained if the natural tendency of the plant to shoot upwards is not severely checked in the first years. Such hedges as can be seen at Newport, R. I., and at a few of the fashionable resorts in New Jersey, with foliage from the ground to the top, so dense that a sparrow can with difficulty enter, can only be grown in this way after years of patient labor. A low hedge is preferable to any other fence for dividing the rear of city lots used as gardens or lawns, but is in bad taste for the front yard."

SUMMER PLANTING.

An attractive booklet upon an attractive subject is that entitled "Successful Summer Planting," issued by Thomas Meehan & Sons, Germantown, Pa. The booklet says:

It is more than likely, since spring planting is over, you will find a bare spot or a wall that needs a Japanese Ivy; a fence, trellis, or pillar that would be beautified by being covered by a Clematis paniculata, a Crimson Rambler Rose, or a Honeysuckle; an old dead tree or stump which could be made attractive by having Virginian Creeper, English Ivy, or Trumpet Creeper clambering over it; or a barren rock or bank over which a Wichuraiana Rose would create a picturesque effect.

The disappointment is no doubt great that these places have been overlooked during the usual planting season, and you are regretting the loss of a year's time. Or perhaps you have been so busy with other planting the rapid advance of summer has overtaken you, and you are only ready now to set out your vines.

Potted vines, as usually sold, are small, insignificant plants in small pots, roughly staked. They are unsatisfactory in appearance.

Our vines, on the contrary, are selected from our best plants; the root-system being a strong and highly important point. They were potted last fall in good, rich soil, in large pots, and carried in a cool house till late winter, when they were brought into the greenhouse and kept at a moderate, easy temperature. They came gradually into leaf, and have made a vigorous, hard growth.

Obituary.

T. G. Yeomans, Walworth, N. Y., who years ago made a specialty of hedge plants, is dead.

B. M. Lelong, secretary of the State Board of Horticulture of California, committed suicide on May 3d, by shooting at Sacramento.

Peter Kane died at his home in Rochester, N. Y., April 25. He was born in Kilkenny, Ireland, and had been employed in the nurseries of Ellwanger & Barry for the last 40 years.

J. D. Mosby, Richmond, Va., formerly of the firm of J. D. Mosby & Bro., and who was prominently identified with the nursery business in Pennsylvania and Virginia for over 30 years, died on May 19th.

Harriet Heustis Barry, widow of Patrick Barry who until his death in 1890 was a member of the firm of Ellwanger & Barry, Rochester, N. Y., died at her home, in Rochester, May 13th, aged 80 years. Three sons, William Crawford Barry, Charles Patrick Barry, of Rochester, and Dr. John Heustis Barry, of New York city, and a daughter, Mrs. Bernhard Liesching, of Rochester, survive. Mrs. Barry took an active interest in horticulture.

J. K. HENBY & SON, GREENFIELD, IND., May 20, 1901—"Enclosed please find \$2.00 for our renewal to NATIONAL NURSERYMAN. Do not care to attempt to carry on business without the aid of your valuable paper."

F. E. WILLIAMS NURSERY COMPANY, DANVILLE, N. Y., May 14, 1901—"Enclosed please find \$1 subscription for NATIONAL NURSERYMAN another year. Of course, we do not wish to miss a number. Hope to continue paper long as it is published. Find each number of interest."



WILLIAM GILLEY, CARROLL, IA., May 10, 1901—"On account of age and health I have concluded to quit the nursery business. Enclosed find P. O. order for \$1. I am sorry to part company with the journal. It is a live paper and up to date in all that interests the tree and fruit men of our country."

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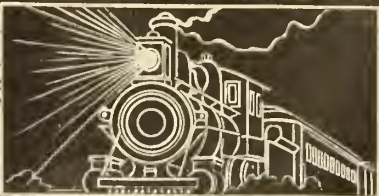
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MEMBERS OF AMERICAN ASSOCIATION OF NURSERYMEN.
NIAGARA FALLS CONVENTION, JUNE, 1901.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Cheap nursery trees tend to cause over planting."—PROF. L. H. BAILEY.

VOL. IX.

ROCHESTER, N. Y., JULY, 1901.

No. 7.

THE FALLS CONVENTION.

PROCEEDINGS OF THE TWENTY-SIXTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

Large and Representative Attendance—Practical Address by Professor Bailey—President Smith's Address—Important Reports of Standing Committees—The Association Opposes Free Distribution of Nursery Stock by Federal Government—Financial Reports—Robert C. Berckmans President—Milwaukee Next Year.

The twenty-sixth annual convention of the American Association of Nurserymen was held at Niagara Falls June 12-13. Members arrived at the Cataract House, the headquarters of the convention the day before the opening date, and thereafter every train, almost up to the time of the adjournment, brought more. The attendance was unusually large and representative. An attempt was made to prepare a list of those who were present. In the absence of an Association register, the hotel registers were depended upon as a basis for the following list, but it is known that the list is not complete.

AMONG THOSE PRESENT.

E. Albertson, Bridgeport, Ind.; W. F. Allen, New York; W. S. Adam, Benderville, Pa.; B. F. Allen, Rochester, N. Y.

R. C. Berckmans, Augusta, Ga.; A. L. Brooke, Topeka, Kan.; L. C. Bobbink and wife, Rutherford, N. J.; John S. Bagby, New Haven, Mo.; Guy A. Bryant, Princeton, Ill.; W. P. Bates, Winfield, Kan.; Herman Berkham, New York; W. Bendschodler and wife, New York; Charles J. Brown, Rochester, N. Y.; L. G. Bragg and wife, Kalamazoo, Mich.; C. E. Baldwin, Augusta, Mich.; F. F. Bernard, A. F. Bernard, Painesville, O.; G. S. Boren, Pomona, N. C.; Martin Barnes, Groesbeck, O.; J. B. Baker, Fort Worth, Tex.; C. V. Bowman, Wm. C. Barry, W. C. Barry, Jr., Rochester, N. Y.; E. H. Burson, Clifton, N. Y.; R. H. Blair, Kansas City, Mo.; H. L. Bird and wife, Benton Harbor, Mich.; T. G. Brown and wife, Knoxville, Tenn.; E. C. Brown, Rochester, N. Y.; P. W. Butler, East Penfield, N. Y.; Nelson Bogue, Batavia, N. Y.; Prof. L. H. Bailey, Ithaca, N. Y.

John Charlton, J. M. Charlton, Rochester, N. Y.; R. J. Coe, Fort Atkinson, Wis.; J. H. Clark, Fredonia, N. Y.; A. L. Causse and wife, Alice Causse, A. L. Causse, Jr., South Orange, N. J.; H. S. Chase, R. C. Chase, Huntsville, Ala.; John C. Chase, Derry, N. H.; W. G. Campbell, Jr., St. Joseph, Mo.; R. G. Chase, Mrs. R. G. Chase, Mrs. H. A. Chase, O. G. Chase, Miss Ann Chase, Geneva, N. Y.; Gilbert Costich, Rochester, N. Y.; H. N. Camp and wife, Knoxville, Tenn.; Lewis Chase, Rochester; C. W. F. Carpenter, Winona, Ont.; Willis H. Coon, Rochester, N. Y.

J. H. Dayton and wife, Painesville, O.; Joseph Davis and wife, Baltimore, Md.; J. B. Donaldson, Warsaw, Ky.; G. E. Downer, Bowling Green, Ky.; T. J. Dinsmore, Phoneton, O.; E. T. Dickinson, Paris, France; George E. Dickinson, New York; R. H. Day, Massillon, O.

Evergreen Home Nurseries, Skaneateles, N. Y.; Otto C. Enscon, Elmer O. Enscon, Evansville, Ill.

William Felmer and wife, Springfield, N. J.; O. H. Felmy and wife, Newark, N. J.; M. B. Fox, Rochester, N. Y.; Theodore Foulk, Flushing, L. I.; F. E. Freeman, Phoneton, O.; M. F. Foley, Baraboo, Wis.; T. J. Ferguson, Milwaukee, Wis.

J. W. Gaines, Xenia, O.; F. D. Green and wife, Perry, O.; Charles A. Green and wife, Marion Green, Rochester, N. Y.; Charles E. Greening, Monroe, Mich.; G. A. Gamble, Fort Smith, Ark.; T. E. Griesa, Lawrence, Kan.; Hiram Gregory, Lockport, N. Y.

Orlando Harrison, Berlin, Md.; W. F. Heikes, Huntsville, Ala.; C. M. Hobbs, Bridgeport, Ind.; N. W. Hale and wife, Knoxville, Tenn.; W. T. Hood, Richmond, Va.; W. C. Harrison, Painesville, O.; W. H. Hartman, Dansville, N. Y.; B. L. Hoyt, Scotch Grove, Ia.; D. H. Henry, Geneva, N. Y.; F. M. Hartman, Dansville, N. Y.; D. Hill and daughter, Dundee, Ill.; Charles G. Hooker, H. Hooker, Miss K. T. Hooker, Rochester, N. Y.; Daniel D. Herr, Lancaster, Pa.; C. H. Hawks, Rochester, N. Y.

C. E. Ilgenfritz, W. T. Ilgenfritz, Monroe, Mich.; James M. Irvine, St. Joseph, Mo.

George S. Josselyn, Fredonia, N. Y.; C. H. Joosten and wife, New York; F. James, Ussy, France; Louis Jenet, Dayton, O.; H. T. Jones, Elizabeth, N. J.; Emma Jacobson, Chicago, Ill.; W. H. Johnson, Topeka, Kan.; Irving Jaquay, Benton Harbor, Mich.; W. E. Jones Co., Lincoln, Ill.

Harlan P. Kelsey, Boston; Harry E. Kelsey, Baltimore; E. W. Kirkpatrick, Miss Alice Kirkpatrick, McKinney, Tex.; Wm. F. Kelly, James M. Kennedy, Dansville, N. Y.; Wm. Kaufman, Kansas City; Miss Fannie Knapp, Rochester, N. Y.

D. S. Lake, Shenandoah, Ia.; P. C. Lindley, Pomona, N. C.; J. S. Linthicum, Wellham, Md.; R. D. Luetchford, Rochester, N. Y.; J. Frederick Lee, Rochester, N. Y.

Jacob W. Manning, Reading, Mass.; J. B. Morey, Jr., and wife, Dansville, N. Y.; Thomas B. Meehan, Philadelphia; George H. Moody, Lockport, N. Y.; C. J. Maloy, Rochester, N. Y.; C. W. McNair, Thomas Maloney, W. J. Maloney, Dansville, N. Y.; J. Horace McFarland, Harrisburg, Pa.; Henry W. Meade, Rochester, N. Y.; David Z. Morris, Brown's Nurseries, Ont.; F. Merriman, Painesville, O.; T. E. Mabee, Des Moines, Ia.; James McVitty, Perry, O.

J. F. Norris, Rochester, N. Y.; H. W. Nelson, Geneva, N. Y.

P. Ouwerkerk and wife, Jersey City, N. J.; Ralph T. Olcott, Rochester, N. Y.

Wilson Peters, Troy, O.; E. H. Pratt, Fredonia, N. Y.; Charles M. Peters and wife, Snow Hill, Md.; D. H. Patty, Geneva, N. Y.; Earl Peters, Uriah, Pa.; Alexander Pullen, Milford, Del.; E. C. Peirson, A. H. Peirson, Waterloo, N. Y.; T. R. Peyton, Mexico, Mo.; William Pitkin, Rochester, N. Y.; A. D. Pratt, Pittsford, N. Y.

Irving Rouse, Rochester, N. Y.; August Rhotert, New York; James C. Rolker, New York; W. Rolker, New York; W. C. Reed and wife, Vincennes, Ind.; E. Runyan, Elizabeth, N. J.

Robert C. Stoehr, Dayton, O.; George W. Sallee, St. Louis, Mo.; Theodore J. Smith, Geneva, N. Y.; George C. Seager and wife, Edward J. Seager, Rochester, N. Y.; F. H. Stannard, Ottawa, Kan.; W. P. Stark, William Stark, Loy Stark, Eugene W. Stark and wife, Louisiana, Mo.; George A. Sweet and wife, Dansville, N. Y.; William G. Storrs, Painesville, O.; E. M. Sherman, Charles City, Ia.; Charles T. Smith, Concord, Ga.; J. H. Skinner, N. Topeka, Kan.; W. N. Scarff, New Carlisle, O.; G. C. Stone, Dansville, N. Y.; Nelson Smith, Geneva, N. Y.

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N. W. Uhl, Dansville, N. Y.

Charles W. Vredenburg, Rochester, N. Y.

Allen L. Wood and wife, Rochester, N. Y.; F. W. Watson and wife, Topeka, Kan.; Frank A. Weber, St. Louis, Mo.; W. H. Wyman and wife, N. Abington, Mass.; B. E. Wheelock, Fredonia, N. Y.; William

M. Wirt and wife, Alpha, Ill.; C. L. Watrous, Atlantic, Ia.; A. Willis, Ottawa, Kan.; Mark Welch, Painesville, O.; R. B. Watrous, Milwaukee, Wis.; B. T. Weldy, Phoneton, O.; George Winter, LaSalle, Ill.; Eugene Willett, N. Collins, N. Y.; W. E. Wellington and wife, Toronto.

C. L. Yates, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; John A. Young, Greensboro, N. C.

CALLED TO ORDER.

Upon assembling in the convention hall at 11 o'clock President Theodore J. Smith greeted the members and called upon William C. Barry, Rochester, N. Y., as a representative of the eastern nurserymen, to welcome the members to an eastern city. Mr. Barry extended a hearty welcome and assured the members that the nurserymen of the East had endeavored to care well for the nursery interests since the Association met in the East seven years ago. He said the nursery interests of the East are more diversified than they were. Nurserymen are branching into different lines of stock. Park and school grounds and city streets are being improved as never before. Mr. Barry closed with an invitation to visit the great nurseries of New York state, which extend from Buffalo to Albany.

Ex-President A. L. Brooke, Topeka, Kan., called upon by President Smith to respond for the nurserymen of the West said that the western members were grateful for the kind reception. "We of the West," said he, "always have our eyes open and looking eastward for information. We do not forget to look to New York, because we find that we can learn more from the State of New York than from any other portion of the globe. Also I can say that as horticulturists of the West we are improving every day. We plant largely. We have, we think, a great apple country. A ten or twenty acre orchard is not in it. When they get to planting quarter sections in fruit some of us crawl up with 40 or 80 acres, so that when the big fellows attract the market, we get a little of it: We try to supply the demand for 160-acre orchards. We have done so pretty well. Some stocks went to a poor market and I may say we do not need the ashes as much as they may in the East.

"Great strides have been made in horticulture since we met in the East seven years ago. In the next seven years we may have delegates from the Philippines."

PRESIDENT'S ADDRESS.

President Smith delivered the following address:

Gentlemen of the American Association of Nurserymen:

I wish in opening to express my appreciation of your kindness in appointing me to preside over your deliberations at this meeting, and I hope to have your co-operation in making this gathering a most pleasant and profitable one.

During the past two years nurserymen have had a fair share of the prosperity that has covered the land, and we should meet here to throw aside worry and work, and devote ourselves to sociability and recreation. In this connection I would suggest that this convention hold meetings in the mornings only, and that the balance of the time be given to social intercourse and to visiting the exposition; and that if thought best and necessary, that the meetings should continue through three days.

The value of this Association to its members, aside from its social features in bringing nurserymen together, must lie principally in its consideration of questions of a general character; questions that affect the whole body of nurserymen throughout the United States.

We have committees appointed each year on such important subjects as the tariff, legislation and transportation. If the convention has any well-formed ideas as to what action should be taken by any of these committees during the next year, the subjects should be given full dis-

cussion, and the committees instructed as to what action should be taken. But, if not so instructed, the committees must be expected to use their discretion in dealing with subjects as they come up, and these committees must be given the support of the Association in their efforts. Much good has been done by the committees mentioned in years past, and there is no doubt that much will be required of them in the near future.

On the tariff.—There are many nurserymen to-day who complain about the duty imposed on nursery stock, and think it money spent unnecessarily. We know, however, that it has greatly stimulated the growing of apple and evergreen seedlings in this country, and has been the means of our competing successfully with foreign cheap labor in the growing of roses and ornamental shrubbery. There is also little doubt that the tariff has been one of the causes for the seeming shortage of fruit tree stocks in France for the past two seasons, as it caused a conservative planting of seed. I say "seeming shortage", because there have been enough stocks to supply actual requirements, and this apparent shortage is the only thing that has saved us from a great over-planting, and its consequent result. There is a strong impression among many who know, that changes will be made in a general reduction of our tariff within the next two years, and if true, we should have an impartial committee with an eye single to the general interests of all, ready to meet the issue when the time arrives.

On transportation.—The great changes that are taking place in railroad combinations may require the strongest kind of work by our committee, and the co-operation of the whole body of nurserymen as well.

On legislation.—This committee has had more on its hands the past two years than any other, on account of the National Bill presented to Congress, and also in heading off adverse legislation. The Association should acknowledge gratefully the efforts made and the expense of time and money spent by this committee, and although the Federal Bill has yet failed of passage, still, as the report of the committee will show, a bill was killed which would have been extremely harmful to nursery interests.

We are now beginning to hear some nurserymen say that too much stock is being planted, and that we are very soon to suffer again from a great over-production, and its consequent evils. There is certainly need of some conservatism at this time in the matter of plantings, but I do not believe we have far over-stepped the mark as yet, when we realize the general prosperity which is now embracing our population of seventy-six millions—a population which has increased one-fifth in ten years, and added to this the great export trade in fruits, both fresh and canned, which is only now in its infancy. Scientific orcharding also is making fruit growing more profitable, and increasing the demand for trees.

In this connection also I should like to refer to the efforts being made by some nurserymen to discourage selling through agents, and to sell directly to the consumer. I say do all in our power to aid the tree agent, and make his vocation as lucrative and popular as possible. He alone makes it possible to market our stock in large quantities, and I believe I am within the truth when I state that half the amount of stock could not be marketed in any other way without him.

Nurserymen should certainly feel very hopeful over prospects of trade for this year. I know, that with every one employed at good wages, and money being plenty, the demand for nursery stock must be better than ever before.

PRESENTATION OF GAVEL.

John C. Chase, noting the fact that there has been no Association gavel, presented one to the Association in the following speech:

Mr. President, Ladies and Gentlemen:—The traditions of a fraternity which represents an avocation second only in point of age to the agriculturist and nurseryman tell us that the gavel is an emblem of authority and should be in the hands of all who are called upon to preside over deliberative assemblies. That this Association has successfully rounded out a quarter century of existence unprovided with such an implement is a tribute to the intelligence of its members and their harmonious relations as well as the tact of its presiding officers.

It is naturally appropriate that a worker in wood should notice the deficiency and take steps to remedy it, and it affords me great pleasure to present this gavel to the Association and ask its acceptance. I re-

gret that I am not able to say that the material from which it is made came from some historic tree, beginning with the original apple-tree that cut such a figure in the early history of the human race and made the vocation of nurseryman possible, down to the immortal cherry tree, which, perhaps, might be selected as the emblem of the Association on account of the lesson which it is supposed to inculcate in regard to prevarication. With this implied lesson in mind I can only tell the truth and say that it is made of wood from an ancient apple-tree which stood on the ancestral farm of the donor in the old Granite State. Five generations have been regaled with its fruit and if perchance any of it found its way to the cider mill the product was religiously relegated to the vinegar barrel, though you may perhaps consider the last statement an incursion into the realm of fiction.

And now Mr. President, to use the words of the witty poet Holmes in referring to his classmate, the author of "America,"

"Fate tried to conceal you by naming you Smith,"

but you have the honor of being the first twentieth century president of the Association and the first one to preside over its deliberations vested with the proper badge of your authority.

President Smith thanked the donor in behalf of the Association, and grasping the gavel, announced that the convention was ready for business.

Upon motion of Mr. Brooke the chair appointed as a committee on order of business: A. L. Brooke, Kansas; Irving Rouse, New York; Thomas B. Meehan, Pennsylvania.

SPRAYING NURSERY STOCK.

Pending the report of the committee on order of business, C. L. Watrous asked for information on the subject of spraying nursery stock. "I am persuaded," said he, "that if we sprayed more it would put money in our pockets. I have been trying to study out a method of carrying the apparatus between nursery rows."

Charles E. Greening said his company uses apparatus on a platform higher than the trees which sprays with sulphate of copper and produces very satisfactory results. Fungus is avoided and trees grow better, ripening up well in the fall. Three men and a team can go over 10 to 12 acres in a day. The expense is nominal, the results wonderful.

Chairman Brooke of the committee on programme reported in favor of the order of business as suggested in the badge book, with the exception that Prof. Bailey's paper be heard at once, inasmuch as he was obliged to leave the city in the afternoon.

PROF. BAILEY'S PAPER.

The principal address before the convention was that by Prof. L. H. Bailey of Cornell University, one of the best known horticulturists in the country. His subject was "What Becomes of the Nursery Tree?" and, as anticipated, it is full of practical information. "There is no man in whom the nurserymen are more interested than Prof. Bailey," said President Smith in introducing the Professor. "We all know him and we all love him." Professor Bailey's paper is presented in another column.

President Smith suggested that after a ten minutes' recess the vice-presidents be announced and that the convention adjourn until Thursday morning at 10 o'clock. This plan would allow the protective associations to meet in the afternoon and leave the evening for visits to the Pan-American Exposition.

STATE VICE-PRESIDENTS.

The following state vice-presidents were elected:

Alabama, W. F. Meyers; Arkansas, G. A. Gamble; Colorado, George J. Spear; Delaware, Alexander Pullen; Florida, George L. Tabor; Georgia,

George T. Smith; Illinois, Guy A. Bryant; Indiana, W. C. Reed; Indian Territory, J. A. Taylor; Iowa, Silas Wilson; Kansas, A. L. Brooke; Kentucky, F. N. Downer; Maryland, Joseph Davis; Massachusetts, J. W. Manning; Michigan, Harry L. Bird; Missouri, R. H. Blair; Nebraska, Peter Youngers; New Hampshire, John C. Chase; New Jersey, William Flemer; New York, George A. Sweet; North Carolina, G. S. Boren; Ohio, Theodore Densmore; Pennsylvania, Thomas B. Meehan; South Dakota, N. E. Hansen; Tennessee, W. L. Wilson; Texas, J. B. Baker; Utah, Wm. Young; Virginia, R. A. Wickersham; Wisconsin, R. J. Coe.

SECRETARY'S REPORT.

Secretary George C. Seager presented the following report:
RECEIPTS.

Membership Fees.....	\$762 00
Advertising—Report.....	\$138 75
Badges, etc.....	443 00
	581 75
Exchange	2 06
	\$1 345 81

DISBURSEMENTS.

1900—Oct. 15, check to C. L. Yates.....	\$350 00
1901—May 31, check to C. L. Yates.....	800 00
1901—June 10, check to C. L. Yates.....	184 00
Exchange and Revenue Stamps.....	11 81
	\$1,345 81

The report was referred to a committee composed of Charles A. Green, New York; J. W. Manning, Massachusetts; J. H. Dayton, Ohio.

TREASURER'S REPORT.

Treasurer C. L. Yates presented the following report which was referred to a committee composed of E. Albertson, Indiana; Charles J. Brown, New York; D. S. Lake, Iowa:

C. L. Yates, Treasurer, in account with the American Association of Nurserymen:

RECEIPTS.

1900.	
June 14—To balance on hand.....	\$2,063 71
Oct. 15—To cash, Geo. C. Seager.....	350 00
1901	
May 3—To cash, Geo. C. Seager.....	800 00
June 11—To cash, Geo. C. Seager.....	184 00
June 11—To cash, rebate from Trunk Line Association.....	17 00
	\$3,419 71

DISBURSEMENTS.

1900.	
June 16—By cash, Union and Advertiser Co.....	\$ 125 00
" " " cash, Whitehead & Hoag Co.....	35 00
" " " cash, Geo. C. Seager, salary, 1899-1900.....	300 00
" " " cash, Thos. B. Meehan, expenses to Washington.....	9 00
" " " cash, Geo. C. Seager, express charges, etc.....	30 65
" " " cash, Union and Advertiser Co.....	94 58
" " " cash, T. B. Meehan, ex. to New York, Ch. Com.....	30 00
" " " cash, C. L. Yates, salary and postage.....	51 18
June 28— " cash, Miss E. Jacobson, expenses con. 1900.....	50 00
Aug. 1— " cash, C. L. Watrous, express charges, etc.....	14 75
Aug. 27— " cash, Union and Advertiser Co.....	219 67
1901.	
Jan. 10—By cash, M. E. Wolff, bond for treasurer.....	18 75
Feb. 26— " cash, Trunk Line Association.....	17 00
Feb. 27— " cash, C. L. Watrous, expenses to Washington...	93 80
Mar. 1— " cash, Silas Wilson, expenses to Washington.....	98 20
Balance cash on hand.....	2,232 13
	\$3,419 71

All of which is respectfully submitted.

C. L. YATES, Treasurer.

REPORT ON TRANSPORTATION.

At the opening of the second day's session the president appointed the following committee on exhibits: T. C. Thur-

low, Massachusetts; William Pitkin, New York; J. H. Skinner, Kansas.

The annual report on transportation, by the standing committee, was presented by N. W. Hale, as follows:

Mr. President—Your committee on transportation begs to submit the following report:

As a rule we find but little to say or recommend in reference to the transportation of nursery stock within the bounds of the United States.

Until recently we have had a very poor and high classification of nursery stock throughout the South, but through the efforts of the committee appointed by the Southern Nurserymen's Association we were able to get everything for which we asked, when we appeared before the Southern classification committee, viz: Minimum car was reduced from 24,000 to 20,000 pounds, and by releasing nursery stock to the value of 3 cents per pound, we procured a reduction in freight running from 25 to 100 per cent. owing to the amount shipped.

We recommended that the various Nurserymen's Associations try and procure a uniform release rate on the shipment of nursery stock, either made it all 3 cents per pound or 5 cents per pound.

We also recommended that an effort be made through Nurserymen's Association covering all the territory to more definitely and plainly make known the items which we call nursery stock, in order to get the benefit of the classification given the transportation of such stock.

We notice in many instances grape vines, seedlings, cuttings, roses, etc., are shipped at a much higher rate than other nursery stock, which should not be the case. However, the Eastern Nurserymen's Association have taken this matter up with the railroads, and expect a favorable adjustment of the same.

In our judgment the greatest demand by the nurserymen of this country is that a more rapid and careful movement of nursery stock is needed, and we feel like suggesting that the nurserymen of the country, especially the nurserymen's associations take this matter up and demand rapid transportation of nursery stock. We find that owing to the very large heavy boxes, railroad hands are inclined to lay them aside at transfer points until the very last chance before transferring or moving them, and on this account shipments often are two weeks en route, when the same help and the same railroad should get such shipments through in one week or less time, and with the same work and expense, they can do all this, provided the railroads of our country knew it to be a uniform and urgent demand upon the part of the nurserymen. In our opinion more losses come to the nurserymen from this one cause than all others combined, so far as transportation is concerned.

We beg to say in this connection that we believe the railroads of this country are willing and anxious to concede every demand that is honorable and legitimate upon our part. We have found this to be the case by closely inquiring into the success of the various nurserymen's associations who have gone before transportation committees and asked for favors. Hence we fully believe that a full, uniform and plain statement of the urgent demand of the nurserymen of this country upon the railroads along this line, they will procure what they ask,

Respectfully submitted,

N. W. HALE, Chairman, WM. PITKIN,
PETER YOUNGERS, A. L. BROOKE.

SHIPPING RATES.

A. L. Brooke—"There are some excellent suggestions in that report. I move that it be received and referred to the new committee on transportation." Carried.

President Smith—"In connection with the report, I will read the following question handed to me by T. C. Thurlow: 'Would it not be economy for nurserymen to pay higher rates on perishable nursery stock?'"

In response to N. W. Hale's query as to the point in the question, Mr. Thurlow said:

"We have been working to get rates on nursery stock down to a low point and have succeeded—they are about the same as those on grain. I believe that in the case of perishable stock we can get better results by paying a higher rate. I find it so in Massachusetts. I ask for a special way bill—on the

Boston and Maine railway it is a blue way bill, while the common one is buff colored. When the railway employees along the line see that blue way bill they push along the stock; it goes by fast freight, and my stock is delivered within a week instead of dragging along the road for nearly two weeks. When I get valuable evergreens from the West I am willing to pay the extra rate, and my customers, in turn, never complain regarding the added cost of shipping."

Mr. Watrous—"How much is the added cost?"

Mr. Thurlow—"About one-third more."

TARIFF REPORT.

Chairman Irving Rouse, of the committee on tariff, stated that he had no formal report.

"You all know," said he, "the trouble and loss occasioned by the decisions of the appraiser at the port of New York during the last two years. The result has been to send most goods through the port of New York and enter them at an inland port of entry.

"Information has come to your committee that another year the government proposes to make the figures at the New York port apply to all inland points. So it is highly necessary to take action; and it is probable that expense will be attached to such action. I would like to see the new committee on tariff authorized to spend whatever is necessary to carry the matter through."

REPORT ON LEGISLATION.

The following report on legislation was presented by the chairman of the standing committee, C. L. Watrous:

At our Chicago meeting last year there was some discussion over the amount of money spent by the committee on legislation. It was stated that the amount expended had been twelve hundred eighty-nine dollars and seventy-eight cents, which seemed a great deal of money; but further and more careful examination showed the amount to be only seven hundred nine dollars and seventy-two cents, as shown by the figures published in our last report. In the course of the discussion of the question whether it was needful to have a committee and spend money, the chairman of the committee made the following statements:

"Four years ago a committee of fruit growers and entomologists from various states met in Washington and drafted a bill which would have almost paralyzed the nursery trade of the United States—made by entomologists and made in the interests of the fruit growing interests and entirely disregarding the nursery interests. We had that bill before this association in St. Louis and agreed that there was not one section of it that did not bear hardly upon our trade and we appointed this committee, not because we ourselves were anxious to secure legislation, but solely to protect our business. We have continued in the same work, not because we wanted to have a law, but because we needed to protect ourselves and must oppose any bill which would, if enacted into law, unfairly injure our business. The result of the discussion was that the committee was continued with instructions from the president and executive committee to keep close watch of the movements in the National Congress but to be prudent to spend no money unnecessarily. In pursuance of such instructions the committee began correspondence with the committees of agriculture of the House and Senate and kept close watch upon all movements likely to lead to a consideration of our bill which remained upon the calendar for the second session of the same Congress. As the session progressed it became more and more doubtful whether the bill could be considered because so much very important legislation was up for consideration and the time was short.

"Finally, a letter came from Mr. Haugen, of the House committee on agriculture, saying that there was talk that the measure, amended to suit the Californians, would be offered in the Senate as a rider upon the agricultural appropriation bill. I immediately wrote to Mr. Wadsworth of the House and to Senators Proctor and Dolliver of the Senate committee on agriculture, asking to be informed by wire, at my expense, if any plan of that sort was contemplated and when the mat-

ter might be considered, saying that the nursery interests wished to be heard. On February 9th a second letter came from Mr. Haugen saying that there was strong talk that something of the sort would be done. The chairman of your committee, having in mind the criticisms of last year about spending too much money, hesitated about going to Washington, thinking that some of the gentlemen there would be sure to send the telegram in time to call the committee to avert danger. It was plain enough that a dangerous move was in contemplation but the time was quite uncertain. That same morning a letter came from Mr. Wilson of the committee, saying that he felt uneasy over the situation, and that if it met my approval he would be ready to respond to a call to go to Washington that same evening. After debating the matter for some time I wired him to come and also wired Mr. Berckmans of Georgia to meet us in Washington on Tuesday, the 12th.

We reached Washington late Monday night, and Tuesday morning were ready for business. The three of us went first to Senator Proctor of the Senate committee on agriculture asking to be informed if any legislation affecting the nursery interests was in contemplation and that we might be heard if necessary. The Senator was very kind, but informed us that he had not been informed of any such thing. He, however, referred us to Senator Dolliver, of Iowa, of his committee for further inquiries.

AN OBJECTIONABLE MEASURE.

"Senator Dolliver was readily seen and showed us a slip which had been furnished him by Senator Perkins of California, with the assurance that it was in his hands with the full approval of the department of agriculture, and in addition thereto, with the approval of all the nursery interests of the United States, so there being no objection to it there was no reason why it should not be attached to the regular agricultural appropriation bill and become a part of the law. Senator Dolliver, taking these assurances as worthy of credence, as he had a right to do, was prepared to consent for the committee on agriculture and unless your committee had been on the ground there is no reason to doubt, that the amendment, a copy of which is herewith submitted, would have become a part of the law. The amendment is as follows:

"In order to prevent the introduction from foreign countries of new and destructive plant diseases and insects which may be dangerous to agricultural interests of the United States, the Secretary of Agriculture is hereby authorized to arrange with the Secretary of the Treasury for the inspection of original packages of plants, seeds, fruits, and cuttings being imported into the United States at such ports of entry as may be agreed upon; and the Secretary of the Treasury is hereby authorized to open such original packages for the purpose aforesaid; and the Secretary of the Treasury shall refuse to deliver to the consignee any such plants, seeds, fruits, or cuttings which the Secretary of Agriculture reports to him as infected with diseases or insects liable to prove dangerous to the interests of the United States."

It will be plainly seen that every nurseryman who imports stocks from Europe would have been in a very serious predicament. Every case of goods would be liable to be detained at the port of entry and opened to await whatever examination the officials of the Treasury and of the Agricultural Departments saw fit to give its contents. The time occupied would have been entirely at the pleasure of the young scientific gentlemen entrusted with the work. It also appears that if one of them decided that some of the plants were diseased he might quietly confiscate the shipment under that clause of the amendment which specifies that the Secretary of the Treasury shall not deliver the goods to the consignee. It would have been an extremely serious situation and might easily have cost the members of this association dozens of times all that our legislation work has cost from the outset or is likely to cost in the near future.

Senator Dolliver assured your committee that the proposed amendment was all right, that it had originated in the department of agriculture and had the approval of the nursery interests and that we were not justified in opposing it. We assured him that we had never agreed to any such thing. The reply came in a flash, "But they say you have!" We responded: "No matter what any one says, we are here in the flesh and say to you positively that of our own knowledge we know that the nurserymen have never agreed to anything of the sort. We have been of the legislative committee from the first that such legislation has been talked of. One of us has from the first been chairman of such committee and this committee is the only body which has

ever had the right to speak for the nursery interests of the United States in this matter." He came back at us with the words: "But they say you have agreed to this," and we could only reiterate: "No matter what others say, you know us and that we are truthful men and we know that we have never agreed to any such thing as that. It would be extremely hard upon all the nursery interests of the United States which represent at least from fifty to seventy-five millions of capital and they cannot on any account submit to any such legislation if they are able to prevent it. Of course if it is enacted in spite of them, they will then be reduced to the necessity of raising such an outcry that the next session of Congress will willingly repeal it but the time for action is now. This is not yet a law. An objection from you will block it and we ask you in the interests of justice and fair dealing towards a great productive industry that no such thing be permitted to be smuggled into the law without a proper hearing. If your committee, after proper hearing, think this law necessary, we shall be overruled of course." He then answered us as follows: "I do not know much about this legislation but I know you men and if you say that the nursery interests do not want this and that it will harm their industry, I will object to it in the Senate which will prevent it going through in a hurry." That was all that we asked.

"HOW DID YOU FIND THIS OUT?"

Your committee then sought out the California delegation in the house. Mr. Needham of that delegation, upon being called into the lobby, said that he had prepared this slip in substance, had taken it to the division of plant industry in the department of agriculture, asking them to see that the language was such as would be suitable and had then taken it to Senator Perkins with the assurance that the nursery men agreed to it. We said that the nurserymen could never agree to any such thing. He smiled at us and said: "What I would like to know is: How did you fellows find this out?" He continued, "I took this over to the department of agriculture only a few days ago and said nothing to anyone. It went out from there and here you are," with a strong accent on the word "you." We assured him that we suspected something of this sort without knowing just what it would be, went there and as we had made satisfactory arrangements with Senators Proctor and Dolliver in the Senate, it was absolutely certain that no such thing could be slipped into the Agricultural Appropriation Bill. Then he said: "Where are you stopping?" and "Can I see you to-night?" we said that we were at a hotel and should be extremely glad to give the evening to his convenience. He came and some time was spent in going over the bill, striking out those things which had been inserted by the effort of Mr. Daniels of California upon the assurance that the nurserymen agreed to them. The objectionable features were that after having had our nursery stock thoroughly examined in any way pleasing to the Secretary of Agriculture. It would still be liable to be opened and examined or held up or otherwise treated according to any law which any one might be able to secure in any state. He thought that Senator Perkins would like to offer the restored bill in the Senate and endeavor to have it passed as a part of the Agricultural Appropriation Bill. Your committee assured him that if they would go forward in good faith we would assist in every possible way towards its success. Thereupon your committee began to do missionary work among such senators as could be readily reached, explaining that the bill, as it would be offered by Senator Perkins met the cordial approval of the nursery interests of the United States. This occupied another day during which the bill was under consideration in the Senate. It should be stated in passing that your committee reached the committee room of the Senate at eleven o'clock, February 12th and the Agricultural Appropriation Bill was laid before the Senate, by previous arrangement, at twelve o'clock of that day so that we had only one hour, but that hour was enough for our purpose.

After a couple of days we were informed by Mr. Needham that Senator Perkins had decided it to be unwise to offer the bill which would be objected to on account of its length. We said that to attempt to put anything in a paragraph that would protect the California orange industry and slaughter the nursery interests could not possibly go through this Congress because we were there and had assurances from the Senate agricultural committee that they would not consent to it. Thereupon he said that it would be necessary to drop everything. We agreed to that and spent another day in explaining the situation to senators and representatives of our acquaintance, asking them that nothing containing the words "Nursery Stock" should

be permitted to be attached to the agricultural or any other bill unless we had been notified and given an opportunity to be heard and as the time was very short such a course would be out of the question and we should be satisfied to prevent adverse legislation at this session and trust to the future, or such legislation as might be thought beneficial to the whole country.

VALUE OF COMMITTEE WORK.

It will be seen from the foregoing that if this association had not had any committee we should have been in a very forlorn condition. Mr. Haugen of the House agricultural committee wrote me a letter saying, "If this bill is attached to the agricultural bill, the bill will go to conference. The conferees will report back to the House the agreements upon the different amendments, and probably move the previous question, giving no opportunity to oppose one single amendment. And in order to defeat one amendment the whole report would have to be voted down. This, you see, would place me in a very embarrassing position, being a member of the committee, to antagonize any report from that committee. I advise that this matter be looked after in the Senate, and if an amendment is likely to be adopted, to have the amendment perfected in the Senate."

By this it will appear that if your committee had failed to be on the ground, this amendment would, without any reasonable doubt, have become a part of the law, and we should have suffered in consequence. Whether it may be advisable to attempt by correspondence to bring about harmony among the various interests and still secure the passage of a bill in substance such as had been more than once agreed to by the nurserymen and the California interests in conference, may be a question for this association. If we do not attempt any mutually agreeable solution of the question, one thing is certain—the nursery interests of the country must be prepared at any time to have very injurious legislation inflicted upon them by the fruit interests of California.

Having a little leisure time, your committee thought best to visit that division of the department of agriculture in which the amendment was written. We found there that the same impression prevailed which had influenced Senator Dolliver. They believed that the nurserymen had agreed to such an amendment and were greatly exercised when informed what would be the effect of such legislation upon the business of nurserymen from year to year. We laid the whole matter candidly before the Secretary of Agriculture, showing him how nearly a great interest had been to serious harm through the action of some subordinates, which action, though in perfectly good faith, had been entirely a mistaken one. We received from him the most emphatic assurance that nothing of the kind would happen again. We suggested, in the light of what had taken place as was evidenced by the proposed amendment which we put into his hands, that it might not be asking too much on our part that a thorough understanding be had that nothing of the kind should be again allowed to go out unless members of your committee, endowed with authority to speak for the nursery interests, had been consulted so that there could be no serious harm done in their absence. The Secretary was entirely agreed and seemed very glad that no harm had been done this time and assured us again that we might rest entirely easy that such a thing would not happen again.

It appears to your committee that the visit to Washington was productive of very great good, and we hope these views may be shared by this association.

All of which is respectfully submitted.

William C. Barry, after the reading of the report said: "Mr. President, as a member of the Association I appreciate the services of this committee. I do not think this committee should be obliged to apologize to this Association for its action. If this Association is good for anything, it is good for this very thing. If you have members who are willing to spend the time necessary to accomplish these things, instead of criticizing them you should take great pains to extend to them a vote of thanks. I hope we will have as good a committee during the next year.

"How does it happen that reports get abroad that we are in favor of measures against which we are really directly opposed? This seems to be done. I am glad we have such a wide-awake committee."

The report of the committee on the treasurer's report was that the items had been checked up and had been found correct.

OFFICERS AND MEETING PLACE.

The committee of vice-presidents reported as follows as to the officers and place of meeting for next year:

President—Robert C. Berckmans, Augusta, Ga.

Vice-president—R. J. Coe, Fort Atkinson, Wis.

Secretary—George C. Seager, Rochester, N. Y.

Treasurer—C. L. Yates, Rochester, N. Y.

Executive committee—Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.; William Pitkin, Rochester, N. Y.

Place of meeting, June, 1902—Milwaukee, Wis.

Mr. Watrous moved the adoption of the report. Motion seconded. Chas. E. Greening, Monroe, Mich., argued for Detroit as the next meeting place. The question on the report was then divided. That portion relating to the recommendation as to new officers was adopted. That portion relating to meeting place was declared open for discussion. Silas Wilson said he hoped the report of the vice-presidents would not be over-ridden, as it had been regularly voted upon in committee and Milwaukee had received a majority of the votes, 14 as against 10 for Detroit. Mr. Greening moved as an amendment that the convention be held in Detroit.

Mr. Brooke—"There is an under-current in this convention to the effect that our Association should locate somewhere instead of being a traveling show. We have just heard important reports from three committees. There is business enough in these committee reports to keep the convention occupied one day. I believe that Chicago is the place to meet; but other cities have asked us to come. Another thing we should consider is that New York knows that the most successful conventions have been held in Chicago. New York's representative to-day reported in favor of Chicago. But as Milwaukee is a suburb of Chicago, we may find it profitable to go there. The sooner we come to a knowledge of the fact that this is a business convention and not a sight-seeing one, the sooner will we get at the greatest interests of the nurserymen."

Mr. Greening's amendment was lost by the same almost unanimous vote that Mr. Watrous's motion to go to Milwaukee was adopted.

GOVERNMENT DISTRIBUTION.

The question of free distribution of nursery stock by the United States government was brought up. Mr. Brooke said it is an important one and he referred to the fact that the result of such distribution had already been felt in Kansas. He moved that the committee on legislation be instructed to submit a resolution condemning the free distribution of nursery stock by state or national authorities. The motion was seconded by Mr. Gamble.

Chairman Watrous of the legislation committee suggested that a state matter should be referred to the horticultural society of that state. William C. Barry said that the experiment stations have done and are doing much good work; but that if they distributed nursery stock free to the American public the nurserymen might as well go out of business at once. Mr. Brooke said the Kansas station was doing more than giving away nursery stock—it was growing it and selling it away below the prices of the nurserymen.

"This Association is the body that should speak out in this matter," said Mr. Brooke. "The legislation committee need not be known in it except impersonally. It is the backing of this

Association that is needed in a movement against free distribution that may prove as baneful as the free distribution of seeds by Congress."

Mr. Kirkpatrick, of Texas, argued for great care in the wording of the proposed resolution, lest the public should misconstrue the motive and should think it a blow aimed at the apple of the public's eye—the experiment station.

Chairman Watrous who was evidently not as well posted on the subject as readers of the NATIONAL NURSERYMAN should be, said the committee on legislation was rather conservative and desired always to know what it was doing. He hoped the committee would not be called upon to draft a resolution on this subject on the spur of the moment, just as the convention was about to adjourn.

J. H. Dayton, Painesville, O., said it was important to take some action at once.

In view of the fact that Messrs. Brooke, Dayton, Barry and others had argued for action by the Association at once, and also that the committee on legislation rightly believed the question of such importance that the limited time of the convention did not warrant an attempt to formulate a resolution for presentation, the editor of the NATIONAL NURSERYMAN moved that it be the sense of the American Association of Nurserymen, in convention assembled, that the Association is unqualifiedly opposed to the free distribution of nursery stock in any way; also that the matter be referred to the committee on legislation, with power to act.

This motion was unanimously adopted, thus placing the Association on record as opposed in general to such free distribution and referring the subject to the committee on legislation for special action as circumstances shall demand.

REPORT ON EXHIBITS.

The committee on exhibits reported as follows:

Rochester Lithographing Co., Rochester, N. Y.—Exhibit of hand-painted, lithographed and photograph plates, and wax fruit.

Baker Brothers, Ft. Worth, Tex.—Specimens of Rosedale Hybrid. Peculiarity seems to be that the tree is green to the center and is said to remain so.

E. W. Kirkpatrick, McKinney, Tex.—Early peaches, new varieties. Thomas B. Meehan, Philadelphia,—Raffia.

Stecher Lithographing Co., Rochester, N. Y.—Fruit plates and nurserymen's supplies in large variety.

John C. Chase, Derry, N. H.—Labels.

Dayton Fruit Tree Label Co., Dayton, O.—Labels, blank and printed. J. Austin Shaw, New York city.—Bailey's Cyclopaedia of American Horticulture.

Alabama Nursery Co., Huntsville, Ala.—Chase's Tree-counter.

Hiram T. Jones, Elizabeth, N. J.—Raffia.

Your committee does not attempt to pass upon the merits of the exhibits, but commends them to the attention of all nurserymen.

FINAL ADJOURNMENT.

Mr. Watrous presented a resolution which was adopted, expressing regret at the absence of and sympathy for ex-President N. H. Albaugh, Phoneton, O., who was detained at his home by the serious illness of his wife and his son.

Upon motion of ex-President Silas Wilson, Atlantic, Ia., the thanks of the Association were extended to President Smith for the able and impartial manner in which he had presided over the deliberations of the Association.

The convention was then adjourned until the second Wednesday in June, 1902, at Milwaukee, Wis.

MILWAUKEE'S INVITATION.

The Citizens Business League of Milwaukee, sent the following invitation to the Association to meet in Milwaukee next year:

To the Officers and Members of the American Association of Nurserymen, Niagara Falls.

GENTLEMEN:—The Citizens Business League takes great pleasure in co operating with Mr. Ferguson in extending to your Association a cordial invitation to meet in Milwaukee next year. We wanted you last year, but the particular attractions in and around Buffalo quite naturally won you over to that locality. Milwaukee is one of the most beautiful cities in the United States and we are confident that should you visit our city, all the delegates would be more than pleased with their reception here.

Our hotels are many in number and excellent in every respect. We are of easy access from all parts of the country, both by rail and water, and your convention should be very largely attended if held here. We hope the decision to meet in Milwaukee will be unanimous.

Yours very truly,

CITIZENS BUSINESS LEAGUE,
by R. B. WATROUS, Secretary.

The mayor of Milwaukee wrote as follows:

To the officers and members of the American Nurserymen's Association
—In convention—Niagara Falls.

GENTLEMEN—It affords me much pleasure to invite your Association to meet in Milwaukee next year. As you may be aware, our city has entertained a large number of associations, large and small, of every character. We have wanted the nurserymen to come here for some time and I hope that our wishes may be gratified next year. You will find here every accommodation for the successful transaction of your business and few cities in the country have so much in the way of natural beauty to offer for the pleasure of the visitors.

Hoping you will honor us by voting to meet here, I am

Yours respectfully,

DAVID S. ROSE, Mayor.

STANDING COMMITTEES.

President Berckmans announces the following as the standing committees of the association for the ensuing year:

Transportation—A. L. Brooke, Topeka, Kan.; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, N. Y.; N. W. Hale, Knoxville, Tenn.

Legislation—C. L. Watrous, Des Moines, Ia.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y.; Howard A. Chase, Philadelphia, Pa.

Tariff—Irving Rouse, Rochester, N. Y.; Thomas B. Meehan, Germantown, Pa.; J. H. Dayton, Painesville, O.

CONVENTION NOTES.

The Pan-American Exposition proved quite an attraction. It brought the ladies too.

The first ballot for next year's place of meeting was as follows: Milwaukee 8, Denver 1, Detroit 7, Chicago 4. Final ballot: Milwaukee 14, Detroit 10.

The American Retail Nurserymen's Protective Association at its meeting in Niagara Falls last month elected: President, William Pitkin, Rochester, N. Y.; vice-president, F. H. Stannard, Ottawa, Kan.; secretary and treasurer, E. M. Sherman, Charles City, Ia.

The Nurserymen's Mutual Protective Association elected the following officers at the Niagara Falls meeting: President, N. H. Albaugh, Tadmor, O.; vice-president, William C. Barry, Rochester, N. Y.; secretary and treasurer, George C. Seager, Rochester, N. Y.; executive committee, E. Albertson, Bridgeport, Ind.; Irving Rouse, Rochester, N. Y.; F. H. Stannard, Ottawa, Kan.

The American Nurserymen's Protective Association elected the following officers at the Niagara Falls meeting: President, William Pitkin, Rochester, N. Y.; vice-president, A. L. Brooke, Topeka, Kan.; secretary, Thomas B. Meehan, Germantown, Pa.; treasurer, Peter Youngers, Geneva, Neb.; executive committee, William Pitkin, Charles J. Brown, Rochester, N. Y.; J. H. Dayton, Painesville, O.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Robert C. Berckmans, Augusta, Ga.; vice-president, R. J. Coe, Fort Atkinson, Wis.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.; William Pitkin, Rochester, N. Y.

Committee on Transportation—A. L. Brooke, N. Topeka, Kan.; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y.; Howard A. Chase, Philadelphia, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. H. Dayton, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JULY, 1901.

THE TWENTY-SIXTH ANNUAL.

In point of attendance the twenty-sixth annual convention of the American Association of Nurserymen was the most successful in its history. Counter attractions, however, did much to detract from the attention to a programme which is essential to the transaction of business. There have been other conventions at which it was shown that due preparation therefor would have resulted in much benefit by reason of the general discussion that might have followed the presentation of one or more questions of direct interest to every member of the Association. But it is probable that at no time was this fact more evident than it was at the convention at Niagara Falls last month.

It was thought by the officers of the Association when a programme was under consideration, that the Pan-American exposition would so engross the attention of the members that an extended programme of papers and discussions would not

be desired. However, the president had planned for a convention extending over three days, with sessions in the forenoons, leaving the afternoons for recreation. This plan was excellent but there was not enough of programme to engage the attention of the members more than two forenoons. At least there did not appear to be, until just before adjournment when the reports of the standing committees on transportation, tariff and legislation and the raising of the question of free distribution of nursery stock by the federal government brought forcibly to the front the fact that there was much business that might profitably engage the attention of the nurserymen of the country in annual session, and led ex-President Brooke to remark that it was time the Association realized the advisability of making these annual meetings occasions for the transaction of business such as could only well be done at these times, instead of regarding the meetings as primarily for rest and recreation.

It is not a new view of the matter. At almost every convention it is argued that once a year the nurserymen should meet and in making and perpetuating acquaintances rest from their labors; that business should be laid aside. We are of the opinion as we have argued repeatedly that the members of the Association would not be greatly wearied by attention to topics on a carefully prepared programme presented during the forenoons and afternoons of two days—four sessions—and we believe that a programme could be prepared which should be of such practical value as to command the attention of the majority of those in attendance. In any event such a plan would enable those who wish to discuss important trade questions in convention where the experience of many from many points could be exchanged, to do so, while others could reap the benefit by a study of the printed proceedings at their leisure; it would make those printed proceedings of greater value. The intermissions and the evenings would afford opportunity for intercourse and recreation.

GOVERNMENT DISTRIBUTION.

The subject of free distribution of nursery stock by the federal government seemed to be new to a majority of the members of the American Association when it was brought up at the Niagara Falls convention. Yet two months ago, in the May issue of the NATIONAL NURSERYMAN a column article called attention to it.

It was shown then that the New York Times had published a special despatch from its Washington correspondent in which it was stated:

"An investigation has been made to discover the varieties which will thrive best in the various localities and the distribution will be made in a manner somewhat similar to that employed in the seed distribution authorized by Congress. Especial attention will be given to trees of the nut bearing, shade and lawn variety, and oaks, ash and linden also will constitute a prominent portion of the distribution."

It was added that "the Secretary believes the idea will prove popular, and in view of the rapidly diminishing forest reserves will be a decided benefit to the country."

In view of the interest manifested in the subject at the Falls convention, and the fact that the Association passed a resolution opposing free distribution of nursery stock, we repeat the letter to the NATIONAL NURSERYMAN, published in the May issue of this journal:

My dear sir:—Your note of recent date calling attention to the newspaper articles in reference to a plan for distributing trees has been received. Judging from the inquiries which have come to us there is considerable interest in this matter and I am glad to furnish you with a statement as to the general plan in view.

It is not intended by any means to make a promiscuous distribution of trees. On the other hand, it is believed that any work of this kind should be limited to trees which are now only locally known and which through changed conditions obtainable by distribution might prove valuable.

It is not the intention of the Department to interfere in any way with the legitimate trade. In fact, it is believed that by the proper handling of the matter, the trade can be stimulated by calling attention to the good things we have in our own country in a limited way. It is thought that by the distribution of a few rare trees and similar plants to different parts of the country interest would be aroused which would result eventually to the benefit of all lines of horticulture.

Thanking you for your kind interest in the matter, I remain,

Yours very truly,

Washington, D. C., April 25, 1901.

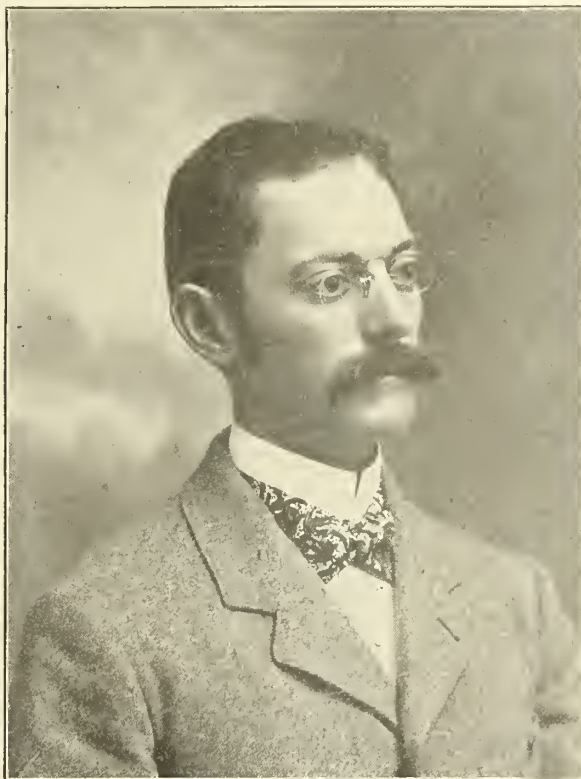
B. T. GALLOWAY, Director.

ROBERT CRAIG BERCKMANS.

Robert Craig Berckmans, president-elect of the American Association of Nurserymen, is the second son of Prosper J. Berckmans, ex-president of the American Pomological Society and president of the Georgia State Horticultural Society since its organization in 1876. After a three years course at the Richmond Academy (the fourth oldest institution of learning in the United States) at Augusta, Ga., he spent three years at Bingham's Military Institute; and completed his education at the University of Georgia.

After extended travel in Europe, visiting and studying the leading horticultural interests of France, Germany, Belgium, England and Scotland, he upon his return became a member of the firm of P. J. Berckmans, established by his father in 1857. In 1898 this firm was incorporated in the P. J. Berckmans Co.; associated with him in this business are his brothers, L. A. and P. J. A. Berckmans, Jr. Under their management the business has steadily increased in both area and diversity of their products; in addition to their extensive domestic trade they also transact a large export trade to South America, Africa, India and the West Indies. The subject of our sketch has traveled extensively in the West Indies, where he made the introduction of fruits from the states a study; and has been convinced that these countries can produce a good product in the line of peaches, plums and small fruits.

R. C. Berckmans has represented his firm for a number of years at the annual conventions of the American Association, and has always taken an active part to advance the interests of horticulture. He has been vice-president for Georgia for a number of years, also a member of the executive, legislative and other important committees. He is largely interested in fruit orchards in his state.



ROBERT CRAIG BERCKMANS.

Besides being active in the nursery business he has taken much interest in military matters in his state; and is now a retired officer of cavalry of the National Guard, having served about seventeen years.

Mr. Berckmans was the unanimous choice of the convention at the Falls for the position of president. His active interest in the Association gives assurance that he will care well for its affairs.

PAN-AMERICAN EXHIBITS.

During June the landscape effects at the Pan-American assumed form sufficient to indicate the plan of those in charge. The florists have done much to add to the attractions of the grounds. The work of well-known nursery firms is also seen. Among the exhibits out of doors are the following:

Thomas Meehan & Sons, Germantown, Pa.—Specimen evergreens, plainly labeled.

Ellwanger & Barry, Rochester, N. Y.—Three large beds of roses, Paul Neyron, General Jacqueminot and red varieties; also, Crimson Rambler.

Bobbink & Atkins, Rutherford, N. J.—Trained box, laurels and other evergreens in large number.

Nelson Bogue, Batavia, N. Y.—Six beds of roses in variety.

James Vick's Sons, Rochester, N. Y.—Five beds of geraniums, salvias, foliage plants, etc.

Long and Short.

Benjamin Chase, Derry, N. H., suggests that orders for labels be sent in early.

Albertson & Hobbs, Bridgeport, Ind., have an attractive announcement in another column.

Mazzard cherry seed may be obtained of Thomas Meehan & Sons, Germantown, Phila., Pa.

Natural peach pits, crop of 1900, may be had of J. Van Lindley Nursery Co., Pomona, N. C.

Budders and grafters are wanted by Stark Brothers, Louisiana, Mo., Dansville, N. Y., and Huntsville, Ala.

In exchange for evergreens 100,000 barberry are wanted by the Evergreen Nursery Co., Sturgeon Bay, Wis.

Black soluble insecticide soap for spraying may be had of V. Casazza & Bro., 190 Prince street, New York city.

Samples and prices of labels are sent upon application by the well-known firm, the Dayton Fruit Tree Label Co., Dayton, O.

Apple seedlings, Kieffer pear seedlings, Russian mulberry and Black Locust seedlings are offered by J. A. Gage, Beatrice, Neb.

Apple trees, 3 years, hardy variety, for early fall shipment, in large quantity, may be had of Phoenix Nursery Co., Bloomington, Ill.

August Rölker, 59 Dey street, New York city, has roses, lilacs, rhododendrons, clematis, etc., from Jac. Smits, Naarden and Boskoop, Holland.

On another page in this issue is the list of apple and peach trees in the large stock of J. G. Harrison & Sons, Berlin, Md. They have Kieffer pear and buds of peach, pear and plum.

PROFESSOR BAILEY'S ADDRESS.

The Question Asked and Answered: What Becomes of the Nursery Tree?—The Fact of the Loss—The Cause of the Loss—What Will the Nurseryman Do About It?—A Practical Subject Concisely Treated by Acknowledged Authority.

Following is the address delivered by L. H. Bailey of Cornell University before the American association of Nurserymen at the convention at Niagara Falls last month:

According to the eleventh census, 240,570,666 apple trees were growing in the nurseries of the United States in 1890. It is estimated that 150,000,000 apple trees are now standing in orchards in the United States.

I. THE FACT OF THE LOSS

In other words, the number of trees standing in the nursery rows in any one year is nearly twice as great as the whole number owned by fruit growers. Moreover, the nursery trees represent the accumulations of but five years, whereas the orchard trees represent forty years or more. Or, the orchard trees may be considered as representing eight generations of nursery trees. This means that about one in sixteen of the apple trees grown by nurserymen find their way into permanent orchard plantations. It is safe to assume that not more than one in five of the trees actually planted in orchards ever return their owners either profit or satisfaction. A full crop of apples in the United States is about 100,000,000 barrels, or two-thirds of a barrel to a tree; and this crop occurs not oftener than once in five years. It is probable that not more than one in a hundred of the apple trees grown by the nurserymen ever produce the final result for which he grows them; and this disproportion is probably greater in other fruits than in the apple, since the apple is one of the easiest fruits to grow.

In Kansas in the census year, there were about 27,000,000 apple trees growing in the nurseries, yet ten years later there were less than 12,000,000 apple trees growing in orchards in that state; and yet Kansas does not ship an unusual proportion of her apple trees outside the state.

This remarkable loss is not peculiar to the nursery business. On another occasion ("Survival of the Unlike," Essay 1) I made an estimate of the loss in seeds. In 1890, according to the census, enough cabbage seeds were grown in this country to raise 1,014,400 acres of cabbages, yet the acreage of cabbages was approximately only 306,376 acres, being 706 024 acres less than the area which the seed would supply. The tomato seed grown in that year was sufficient to afford plants for 1,473,920 acres, yet only 91,802 acres seem to have been raised, leaving seeds sufficient to stock 1,362,713 acres.

Great as these losses are, they are small as compared with those that normally occur in nature. We like to think of the forces of nature as working with economy and exactness, yet the fact is that nature's methods, as measured by human ideals, are wanton and wasteful. The robin that last year built her nest on my porch, reared five fledglings. If only two were females, this year the progeny should be ten; if half were females, next year the progeny should be fifty; in ten years the progeny of the females would be more than 30,000, not counting all the males and saying nothing about the birds that live from year to year. If any single pair could gather all its progeny at the end of ten years, it should have a family of about 50,000; yet I doubt if all the robins from here to Rochester are as many as that. Not one in ten thousand of the seeds of elm trees ever produce trees. Not one in twenty of the blossoms on an apple tree ever set fruit. Very few of the buds and branches in a tree top persist long. Not one one hundredth of the fish eggs ever produce mature fishes, else the rivers would be so full that they could not flow, and the lakes would be stiff. All this represents loss when considered with reference to specific means working towards specific ends; but in the long run, nature knows no loss, for all things return to her bosom to be worked over again. She uses all her wastes.

II. THE CAUSE OF THE LOSS.

You are now asking why the loss of nursery trees occurs. It is plainly not the fault of the nurseryman, for his plants are capable of

growing, else they will not sell. A small percentage of the loss is due to the inability of the nurserymen to find market for all that he raises. Most of the loss occurs after the stock leaves the nurserymen's hands.

(1.) Lack of definite ideals on the part of the buyer. The man who has no definite purpose in view when he sets his plantation, is likely to set more trees than he needs, or to set the wrong kinds; then neglect follows. Neglect always means loss. There is great contrast between the nurseryman and the fruit-grower in the care that is given the trees. With the nurseryman, every tree is an item in his inventory. It is an entity. Every tree is worth a definite sum. With the planter, the case is different. The trees are distinct and individual items when they are planted, but soon thereafter they lose their identity in the orchard. Too often the fruit-grower thinks of his orchard with trees in it, rather than of his trees in the orchard. That is, he loses track of each individual tree and thereby he cannot give it the special care and attention that it may need. It is probably not too much to say that nine-tenths of all tree plantings are neglected. With all our modern teaching, we have probably not rescued from neglect more than one-tenth of the tree plantings of New York State. We are still in need of the teacher.

Cheapness of trees is perhaps a factor in their loss. Cheap trees tend to stimulate overplanting. The planter buys more trees than he needs, and then neglects results. High priced trees, within reasonable limits, mean better trees, better care, and better fruit-growing. With trees of high enough price to afford the nurseryman a fair living, the planter may buy less, but he is likely to make the trees produce more.

The influence of the large planters has been disastrous to many persons who are not fitted to care for a large and complicated business. Only few people can plant very large orchards and make them yield a profit. Few of us are generals. Few men have motive power; most men are trailers. I still believe that nine-tenths of those who grow fruit must plant on a modest scale. Those who succeed in a large area are, I believe, the few, rather than the many.

(2.) Inability to market the produce is a cause of a loss of trees because neglect follows. Note the let-down after one failure to market a crop. Few people have definite commercial ideals when they plant a commercial orchard. One should begin to market the produce when the tree is set. He should know what he wants to do with it. It is no unusual thing for a fruit-grower to discover a crop of fruit some years after he has planted an orchard, and not to know what to do with it. Having no grasp on the situation the fruit brings no commercial return, discouragement results, and the plantation goes into decline.

(3.) There are specific difficulties that cause the loss of trees, such as droughts and cold winters, and the depredations of insects and diseases. Any or all of these things may be serious, but they are incidents and they do not defeat the man who has the ability and the determination to succeed. It is not to be expected that all men will succeed in fruit-growing or other lines of horticulture any more than in manufacturing or other business. The horticulturist has definite and serious problems to confront. All horticulturists run a gauntlet, and the San Jose scale takes the hindmost.

III. WHAT WILL THE NURSERYMAN DO ABOUT IT?

If there are so many losses, what will the nurseryman do about it? First of all he will accept the situation. There is no use of kicking against a fact.

In the second place, the maintenance of the nurseryman's business depends in large measure on this perennial loss of stock. It may be thought that this represents loss of effort, but it is not so. Effort is its own reward. It is worth while to grow a good tree just for the sake of growing it,—and of getting the money for it. It is worth the while to plant a tree just for the sake of planting it. I like the retort of the old man who was told that he was planting for posterity. "I am planting for myself," he replied, "for I am having the fun of planting." My father, at eighty-one, is still planting trees, and he enjoys it. Always are we hoping for happiness and thereby do we fail to find it. The planting of trees is an educational process. It betters the community. When trees begin to be planted, fences are repaired and buildings are painted. It is too much to expect definite success from every effort in any undertaking. If one tree in a hundred comes to full fruition, it is worth while to have planted the ninety and nine.

Certain people are always predicting over-production by figuring the future yield from the number of trees planted. This is fallacy, for only a small part of the planting produces an eventual crop. In fact, the whole history of tree planting illustrates just the opposite,—the fact that the natural losses prevent permanent over-production and maintain the equilibrium. Consumption of fruit and demand for ornamentals are likely to keep pace with the actual production. The consumption of fruit per capita is increasing; the export trade is growing; manufactured fruit products are extending in amount and popularity.

In the third place, time sifts out the dross; this is the vital lesson of this discussion. If only a small percentage of our efforts is destined to result in permanent success, then there is all the more reason that we should grow only the best, for then are our chances of an enduring success the greater. One first class novelty is worth more than twenty indifferent ones. There will be less failures in the future. The state of intelligence is rapidly rising. More and more the planter is making specific demands of the nurseryman. No longer can the nurseryman do an indiscriminate business. More and more must he satisfy the special customer in his own geographical region. The tendency must be towards diversification.

Because there is loss is no reason for discouragement. The nurseryman has less occasion to be discouraged than the planter, for the nurseryman sells his trees to the planter. So long as the planter has enthusiasm, the nurseryman should have hope. Nature has not given up the nursery business just because she so often fails to realize.

All these considerations enforce the fact that, as nurserymen and plant growers, we are still far short of our greatest possible efficiency.

Among Growers and Dealers.

B. Suzuki, of Suzuki & Iida, is on his way home to Japan.

Frank Vestal, Little Rock, Ark., died May 18th, aged 42 years.

P. Ouwerkerk, Jersey City, will sail for Holland on the 6th of July.

Mr. Schuette, of Schuette & Czarnowski, St. Louis, Mo., started on a European trip, June 15th.

The St. Elmo Nursery and Orchard Company, St. Elmo, Ill., increased its planting largely last spring.

A packing house fire at Fairbury Nursery Company's, Fairbury, Neb., caused a loss of \$1,000 on May 29th.

Irving Jaquay, Benton Harbor, Mich., has purchased a 200-acre farm at South Haven, Mich., for nursery purposes.

Smith Brothers, Concord, Ga., have just finished a new concrete packing house and are now building a new office.

William C. Barry, Rochester, N. Y., attended the flower show at the opening of the new Horticultural Hall in Boston.

The dutiable imports of plants, shrubs, and vines amounted to \$73,188 in April, 1901, against \$70,166 in April, 1900.

Commodore Perry Lines, a veteran nurseryman, of New Haven, Conn., died recently. He was engaged in the nursery business for 45 years.

A plan is being considered by the Buffalo, N. Y., park commissioners' botanical committee for establishing a tree and shrub nursery in Cazenovia Park.

George L. Taber, Glen St. Mary, Fla., nurseryman, was re-elected president of the Florida Horticultural Society at the annual meeting at St. Augustine, May 21-24.

Thomas Smith, 102 years and 5 months old, died in Rochester, N. Y., May 15th. He had been employed by Frost & Co. and Ellwanger & Barry, working until he was 90 years old.

The fourth volume of the American Cyclopædia of Horticulture, of which Prof. L. H. Bailey is the editor, will be issued by the publishers, the Macmillan Co., New York and London.

Members of the Association who desire photographs of the group which assembled before a camera immediately after the convention was adjourned, may obtain them, for \$1 each, of the photographer, M. H. Zahner, 36 Falls Street, Niagara Falls, N. Y.

Frederick W. Kelsey, New York city, sailed June 15th on the steamship Trave for a three months' trip abroad. He will visit Italy, Switzerland, Holland, Germany and England.

The nineteen annual meeting of the American Seed Trade Association was held in Rochester June 11-13. These officers were elected: President, Jesse E. Northrup, Minneapolis; secretary-treasurer, S. F. Willard, Weathersfield, Conn.

Articles of incorporation have been filed with the secretary of state by the Gardner Nursery Company, Osage, Ia. The capital is \$50,000. The incorporators are Charles F. Gardner, Clark E. Gardner, William C. Gardner, Rosa M. Gardner and Grace B. Gardner.

Benjamin R. Palmer died at Gananoque, Canada, June 15th, aged 74 years. He was engaged in the nursery business in Rochester and Geneva, N. Y., for a time subsequent to 1874. He was the father-in-law of ex-President Irving Rouse of the American Association of Nurserymen.

Prof. L. H. Bailey started for the Pacific Coast last month after the Niagara Falls convention. He will deliver a series of lectures at the University of California. He expects to be absent two months. He will visit horticultural centers in California and Oregon in the interest of his new magazine, "American Country Life."

The nurserymen and florists of Los Angeles, Cal., met June 10 and effected permanent organization. The association will co-operate with the horticultural commission. Officers were elected as follows: E. H. Rust, of South Pasadena, president; A. Campbell-Johnson, vice president; Miss Lord, secretary, and J. F. Rupprecht, treasurer.

At the meeting of the Wholesale Seedsman's League, held at Rochester, N. Y., June 14, the following officers were elected: President, F. W. Bruggerhoff, New York; vice-president, S. F. Leonard, Chicago; secretary and treasurer, Burnet Landreth, Philadelphia. Messrs. Landreth, Burpee, Maynard, and H. W. Wood were elected directors.

The New York State Fruit Grower's Association is not mapping out any new work other than that planned at the annual meeting at Syracuse. County organizations are being perfected in the fruit-growing section. Niagara, Orleans, Ontario, Wayne, Seneca, and Oswego counties have already organized. Yates county held a meeting June 1 for this purpose.

Nelson Smith who is always at the conventions is popular at home as well as abroad. He is a police commissioner and potentate of the Geneva temple, Ancient Arabic Order Nobles of the Mystic Shrine. By reason of the latter fact he was able to translate many of the hieroglyphics on the Midway and therefore was called upon several times to chaperone parties of less fortunate nurserymen down the camel path.

The city of Denver made an active bid for the 1902 convention of the Association. Letters of invitation were received from the mayor of Denver, the governor of Colorado, the State Board of Horticulture, the Denver Chamber of Commerce and George J. Spear, the wide awake nurseryman and member of the Association, from Greeley, Colo. An invitation to hold the next convention in Detroit was received from the secretary of the Detroit Chamber of Commerce.

Among those who called upon Rochester nurserymen after the convention were: Ex-President Silas Wilson, Atlantic, Ia.; President R. C. Berckmans, Augusta, Ga.; D. D. Herr, Lancaster, Pa.; Harry L. Bird, Benton Harbor, Mich.; A. Willis, Ottawa, Kan.; Frank A. Chase, Huntsville, Ala.; C. M. Hobbs, Bridgeport, Ind.; George Sallee, F. C. Weber, St. Louis, Mo.; W. C. Reed, Vincennes, Ind.; W. T. Hood, Richmond, Va.; Charles F. Smith, Concord, Ga.; Thomas B. Meehan, Germantown, Pa.; E. Albertson, Bridgeport, Ind.; C. F. Bernard, Painesville, O.; E. W. Kirkpatrick, McKinney, Tex.; Herman Berkan, New York city.

G. E. PRATER, JR., PAW PAW, MICH., May 9, 1901: "I enclose \$1 for paper. Excuse delay in remitting. We haven't had time to breathe, but can't do without the paper."

JOHN SIEBENTHALER, DAYTON, OHIO, May 8, 1901:—"Please excuse delay in remitting my subscription, I want you to continue sending me the paper as I consider it the most valuable paper I receive. Inclosed find \$1 with best wishes."

Recent Publications.

In a booklet entitled "What is a Kindergarten" George Hansen, landscape architect, Berkeley, Cal., enumerates the list of subjects to be planted in the children's garden that will most interest the child and in a practical manner accompanied with various plans for lots of various size, tells how these plants may be treated to the best advantage. The kindergarten, he says, is the playground of the child, the home of the mother, the battlefield of the man, the anchor ground of patriotism. The book will be found of assistance to teachers of nature studies and to all who are interested in gardening. San Francisco: MORGAN SHEPARD.

The July issue of the "Delineator" contains the finest pictures yet presented of the Pan-American exposition. They show the harmonious blending of colors which is a distinctive feature of the exposition buildings. These pictures of two views of the electricity building and one of the restaurants are really far beyond anything of the kind that has been attempted. They were made possible by reason of the fact that the publishers of the "Delineator" had the advantage of working directly from the original water color sketches of C. Y. Turner, director of color to the Pan American exposition. All the beautiful effects of the originals, necessitating the most exact register of plates, have been obtained, though all the work was done at high speed. The July "Delineator" numbers 625,000 copies.

Bulletin No. 30, entitled "A Forest Working Plan for Township 40," by Ralph S. Hosmer, Field Assistant, and Eugene S. Bruce, Lumberman, of the Division of Forestry, has been issued. The working plan proper is preceded by a discussion of conservative lumbering and the water supply, by Frederick H. Newell, Hydrographer, U. S. Geological Survey. This bulletin contains a working plan for conservative lumbering on Township 40, Totten and Crossfield Purchase, Hamilton County, New York State Forest Preserve, prepared by the Division of Forestry in cooperation with the State of New York. It deals with one of the most important forest problems now before any of the States, and marks a step in forest policy; for this is the first instance of cooperation in practical forest management between the Federal government and that of any State.

We have received from L. R. Bryant, Princeton Ill., secretary of the Illinois State Horticultural Society, the transactions of that society for 1900 being the proceedings of the 45th annual meeting at Champaign Dec. 11-13, 1900 and of district and county societies, edited by the secretary. The volume has 525 pages and is filled with valuable horticultural information. Special mention is due the very able and scientific articles by Dr. T. J. Burrill, Prof. Goff, Prof. Forbes and Prof. Blair; Dunlap's talk on "Illinois Fruits at the Paris Exposition," and the very valuable and practical papers by C. H. Williamson, H. A. Aldrich, E. C. Green, Prof. Keffer, Prof. Lloyd and others. The report is sent free to all members, to schools and other public libraries, in the state, on payment of postage, and 25 copies to each county Farmer's Institute, on application. Half-tone engravings of fruit of trees and of officers of the society add to the value of the book.

The dutiable imports of plants, shrubs and vines, etc., amounted to \$95,830 in January, 1901, against \$47,666 in the same month of last year. The free imports of seeds amounted in January, 1901, to \$166,902, against \$182,622, the value of the imports of January, 1900.

WILD GOOSE PLUM.—Regarding the origin of this plum, T. E. Shelton, of Arkansas, says in the Arkansas Fruit Grower: John S. Downer, Todd county, Ky., was the first to propagate and disseminate the "wild goose" plum, its origin was purely accidental and somewhat veiled in mystery. It was in Tennessee, I believe, Montgomery county, a wild goose was killed as it was going South in the fall, and after being kept several days as a curiosity, it was thrown into a fence corner, where it lay and decayed. A scion sprang up there and grew to be a bearing tree. It was supposed a seed was in the goose's craw. The fruit was a new surprise, and specimens were sent to Mr. Downer, and he went immediately and procured the exclusive right to propagate from the tree.

F. S. PHOENIX, BLOOMINGTON, ILL., May 11, 1901:—"We enclose herein draft for \$1 in payment of subscription to the NATIONAL NURSERYMAN and trust your subscription list is on the increase."

THE ORANGE OUTPUT.

It has been calculated that there are in Italy 5,400,000 orange trees which yield on an average 1,600,000,000 oranges per year, or 300 oranges per tree. In the province of Seville, in Spain, where the largest quantity of oranges is grown in Europe, the average annual yield per tree is estimated at 600 oranges. The island of St. Michael, in the Azores, produces on an area of 265 acres 350,000,000 oranges, which are almost entirely shipped to England. In 1899 the total export of oranges from Spain exceeded 1,000,000,000. Greece exported in 1899 some 50,000,000 oranges.

NURSERY AT DECATUR'S BIRTHPLACE.

The largest blocks of peach trees in the world can probably be seen at the nurseries of J. G. Harrison & Sons at Berlin, Md. They are now ready to start June budding. Their largest block of peach trees, of more than one hundred acres, is on the farm where Commodore Decatur was born. Their blocks of half million apple, half million asparagus, and sixty acres or more in strawberry plants are very promising.

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The Official Journal.

Can you afford to do business without the only trade paper devoted exclusively to that business? Those who have taken this journal regularly say they cannot. Subscribe now and reap the benefit. \$1.00 per year.

THE NATIONAL NURSERYMAN.

305 Cox Building, - - - - - Rochester, N. Y.

WANTED

—A competent bookkeeper, must have a thorough knowledge of the nursery business and give satisfactory references.

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FANCHER CREEK NURSERIES, Fresno, Cal. P. O. Box 2697.

The Sparta Nurseries

have to offer their usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

NATURAL PEACH PITS.

CROP OF 1900.

Our pits are gathered from the rural mountain districts and are all genuine naturals. They are in splendid condition, as they have been carefully preserved.

Write for Sample and Delivered Price.

ONLY A FEW HUNDRED BUSHELS LEFT.

We will not likely have a large supply of the 1901 crop this fall but hope to have a fair supply.

J. VAN LINDLEY NURSERY CO.,

POMONA, N. C.

Grape Vines AND Currant Plants

Highest
Standard
of Grades

Largest Stock and Lowest Prices. Correspondence solicited.

Wheelock & Clark, Fredonia, N. Y.

WANTED

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GRAPE

An extra fine stock and full assortment of varieties of CURRANTS and GOOSEBERRIES; also BLACKBERRY ROOT CUTTING PLANTS.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True
QUALITY UNSURPASSED.
A fine stock of Campbell's Early.
Catalogue and Price List Free.
Send list of wants for prices.

VINES

ROSES

American Field
Grown Plants..

The best of the Teas, Hybrid Teas, Hybrid Perpetuals and Noisette varieties in stock.

Send for list of varieties and prices.

ORANGE TREES

grown in pots suitable for conservatory or window garden.

Budded or Grafted Pecan Trees

Also a complete line of nursery stock. Peaches, Plums, Pears, Japan Persimmons, Figs, Muscadine Grapes, Ornamental Trees, Shrubs, etc.

THE GRIFFING BROS. CO., Jacksonville, Fla.

Wholesale Nurseries

We have a full line of stock for nurserymen and dealers, including Apple Trees and Apple Seedlings by car load. Apple Grafts put up to order, Piece or Whole Root. Thirty-three years in the business.

The only practical Box Clamp in use—Cheap.

R. H. Blair & Co.,

PROPRIETORS OF
LEE'S SUMMIT NURSERIES.

N. W. Cor. 11th & Walnut Sts., KANSAS CITY, MO.

100,000 PRIVET

1 1/2 FEET.
2-3 FEET.
3-4 FEET.
4-5 FEET.

Prices given on application. Usual assortment of Roses, including Crimson Rambler.

HIRAM T. JONES, UNION COUNTY NURSERIES. Elizabeth, N. J.

ON THE MIDWAY

was where a large majority of the nurserymen who attended the convention were eventually seen.

It is hardly probable that they were looking for labels and we shall expect the usual orders in due time, which should not be set too far ahead.

BENJAMIN CHASE,

DERRY, N. H.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT,

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39 AND 41 CORTLANDT STREET, NEW YORK.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

HEADQUARTERS FOR NURSERY STOCK.
Baltimore and Richmond Nurseries,
BALTIMORE, MD.
FRANKLIN DAVIS NURSERY CO.
50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Raffia,
General Supplies,
&c., &c.,
&c.

When writing to Advertisers mention The National Nurseryman.



CENTER OF ATTRACTION, BUFFALO, N. Y., SUMMER, 1901.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"My father at 81 is still planting trees."—PROF. L. H. BAILEY.

VOL. IX.

ROCHESTER, N. Y., AUGUST, 1901.

No. 8.

VIRGINIA REGULATIONS.

Information of Importance to Nurserymen Doing Business in That State—Stock Shipped Into Virginia Must Bear Certificate of Inspection and a Special Tag—Why This Provision Has Been Found Necessary—Woolly Aphis and Gall.

The following has been issued by the Virginia State Board of Crop-Pest Commissioners from the office of the State Entomologist and Pathologist, at Blacksburg, Va., under date of June 13, 1901:

IMPORTANT TO NURSERYMEN—The enforcement of the Virginia Crop-Pest laws has given rise to some confusion and annoyance to nurserymen in other states who do business in this state. This has been occasioned generally by the failure on the part of these nurserymen to observe the provisions of our laws and regulations, which require that each package of nursery stock shall bear a proper certificate of inspection, and, in addition, a special tag provided from this office. Some nurserymen have seen fit to take strong exception to these requirements, and one nurseryman in particular (though meeting with no obstacle whatever in his business in this state), has loudly proclaimed and published his opposition to the position we have taken. Hence I think best to state in this circular our position, trusting that it will lead to mutual understanding.

This state is unfortunately seriously infested with San Jose scale, and with slight exception the trouble is traceable to nursery stock coming from other states. Only a small amount of nursery stock grown in this state has ever been found to be infested and at present there is practically none. Our control is so rigid that the state nurseries are as free from suspicion as it is possible to be in a state having orchards infested with the scale. Every year since the passage of the first inspection law, the scale has been shipped into this state from outside our borders, on stock bearing a regular certificate of inspection. This is not stated to discredit any one's work, but it does show that there is either carelessness or dishonesty, when the same thing occurs repeatedly from the same nursery. Now, here is the point in a nutshell: If we make a regulation that all stock bearing an official certificate may enter this state, what recourse have we in the case of infested stock coming into our state under such certificate? None; unless we wish to make a lot of trouble and bring the offending nurseryman before the public notice. But if this nurseryman must have our official tag on his stock, we have a short and simple method, viz.: to recall the official cards. If these should be refused, of course we would resort to publicity.

The above fairly explains our purpose in requiring the use of an official tag from this office. This regulation was not adopted from choice, but from necessity. And I wish to state that we have found it necessary to withdraw our tags the past year. In one instance in mind, the official certificate of inspection remained in force regardless of this fact. It seems to me that any person familiar with the subject, ought to appreciate our position and not push this matter by irrelevant talk until it leads to serious quarreling and bickering.

Further, it is objected that we require inspection against woolly aphis, and an objector dramatically proposes to swear the the nurserymen present at a certain convention, as to whether or not they have this louse on their premises. Certainly we know that practically every one has it. And we further know from abundant experience that it is one of the most serious pests to young orchards in this state. We do not expect any one to certify that his premises are free from this pest, but we do expect that the stock shipped shall be free from the knotted

roots and living specimens of the louse, and hereafter we shall seize and destroy nursery stock carrying these knots or the living lice. You may ask, "How is one to comply with such a regulation?" By rejecting the plants showing knotted roots, and fumigating to destroy the lice.

After five years' experience, we can positively state that fumigation is a perfectly safe and sure method of destroying the woolly aphis, and that as a precaution against San Jose Scale in suspicious districts, it is invaluable. It must, however, be properly done, and cannot be left to the whims and caprices of ordinary laborers. I have planted trees encrusted with this scale, which had been given one fumigation, and during three years' observation was unable to find a single living scale.

This year we shall add crown gall to the list of troubles against which nursery stock must be inspected.

We have hesitated to place official ban upon the woolly aphis and the crown gall, but our practical observation in the young orchards demonstrates that these troubles are fatal to a large number of the trees at an early date, and that trees so affected can not be relied upon to produce a good orchard; hence we are ready to bear the responsibility of the regulation.

I do not believe that with honorable nurserymen it has simply become a question of selling so many trees to secure a profit therefrom, but that they will be willing to bear the burdens of just regulations, so that the orchard industry may flourish, and not be utterly wiped out in large sections of our country. No man honors more than I this splendid class of men who have done so much to built up our fruit interests!

A word as to how we have administered our state laws in case of error or negligence on the part of the shippers, may be appropriate. I could cite a string of cases of this sort, and whenever the nurseryman has appealed to us, if he was known in our office, and had not previously shipped diseased stock, we at once secured entry for his goods by telegraph, if the point of detention was given us. If not, we furnished him with all haste, the proper tags. There should, however, be no further occasion of oversight to secure tags in advance.

No man can justly charge us with a desire to interfere with free commerce between the states, and as to the importance of securing uniform national regulations for such troubles, I was the first man in the East to propose this step, and as chairman of the legislative and executive committees of the Washington convention of March 5th, 1897, I think my position is well known to the fruit-growers and nurserymen of America. I still stand squarely on the position taken at Washington in 1897, and at the Nurserymen's Convention in St. Louis in June of the same year. We are in need of uniform, sane regulations which can be strictly enforced by men competent to judge of these troubles. Unfortunately in the meantime state officers acting under state laws are obliged at times to take positions that may seem unwarranted and severe. This is because we know that there are grave faults in some of the inspection work which we are called upon to accept, and as we can not appeal to a central authority to control this, we must unwillingly put up the bars alike against all.

The following primary requirements must be complied with in certificates of inspection before they will be accepted in this office:

1st. The date on which the inspection was made. (Inspections made before July 1st of each current year will not be accepted.)

2d. The name of the person or persons who make the inspection must appear in the certificate.

3d. The certificate must certify that the stock is apparently free from San Jose scale and other dangerously injurious insects, pests, and plant diseases.

4th. It will be the policy of this office to accept only certificates which show that the examination has been made by a person or persons

of proper credentials as to their competency. i. e., known entomologists, or persons vouched for by known entomologists.

All plants carrying San Jose scale, woolly aphid (or the knotted roots caused by this insect), crown gall, black knot, fire blight or peach yellows, will, when found in transit or upon nursery yard or delivered upon private premises, be seized and destroyed, and the tags issued to the shipper of such stock will be recalled.

It would be indeed a rare occurrence to find black knot, fire blight, or peach yellows on nursery stock.

The official tag from this office issued to cover nursery stock entering the state, will be substantially as follows:

VIRGINIA STATE BOARD OF CROP-PEST COMMISSIONERS.

Official Tag No.

Blacksburg, Va.....1901.

This is to certify that the certificate of a duly accredited inspector has been filed in this office, stating that the nursery premises of were examined on.....1901, and that the above mentioned certificate conforms to the laws and regulations in force in this state.

This card is not valid after July 1st, 1902.

Issued on certificate of.....

State Entomologist and Pathologist.

Official tags will be furnished on application accompanied by a proper certificate of inspection, at the following prices: 25 tags, 20 cents; 50 tags, 25 cents; 100 tags, 30 cents; 250 tags, 65 cents; 500 95 cents; 1,000 tags, \$1.50; post paid. Remittance must be made by postal order in advance, as we cannot keep accounts in relation to this matter. Checks for these small sums will not be received.

WILLIAM B. ALWOOD,

State Entomologist and Pathologist.

FRUIT CULTURE IN GREAT BRITAIN.

The Board of Agriculture of Great Britain has issued an official statement for 1900 which shows, says the Gardener's Chronicle:

In the whole of Great Britain, 73,780 acres are now devoted to small-fruit culture, and 232,129 acres to that of orchards. Kent is very far ahead of all other counties as regards the culture of small fruit, no fewer than 22,466 acres in this county being allotted to these crops.

In Middlesex, 4,231 acres are recorded as given up to small-fruit culture. Cambridge has 3,428 acres, and Worcester 3,634 under fruit culture. In the other counties a much smaller area is thus utilised, Rutlandshire, the smallest English county, having only 49 acres so made use of.

Turning to orchards, we find Devonshire heads the list with 27,240 acres, followed by Hereford with 26,847; Kent, 26,340; Somerset, 24,992; and Worcester, 21,023 acres. The other counties show very largely lessened proportions; Rutland again being lowest on the list with 98 acres only.

So far as imports go in the year 1900, we imported 2,128,477 cwt of apples of the value of £1,222,655. Of oranges and lemons we take no note, as their importation does not directly affect our cultivators; but we paid the foreigner £308,395 for cherries, £595,000 for grapes, £366,871 for pears, and £392,696 for plums. Taking fruits of all kinds, including bananas, the total value imported in 1900 was £6,481,562.

Another table shows that the proportional value, per head of the population, of fruit imported amounted to 3s. 9d. a head, that of vegetables to 2s. 3d.

Another table shows whence all these products are derived, thus the United States sent us 1,248,403 bushels of apples, Belgium followed with 276,967 bushels, France 234,412, Holland 103,936, and Portugal 203,238, figures which seem to require explanation. Even Norway sent us 10 bushels of apples. The total from all foreign countries was 2,109,152 bushels.

France sends by far the largest quantity of cherries, viz., 195,883 bushels. Belgium contributes 15,113 bushels of grapes, double what France sends us; while Portugal is far in advance of all other countries in its export of grapes to Britain, the total quantity being 892,574 bushels. France sends us 315,610 bushels of plums, Germany 191,021 and the United States 8,862 bushels.

The total quantity of apples imported from our colonies was 1,752,020, by far the largest quantity coming from Canada, viz., 1,549,951; while Tasmania sent 154,713 bushels, and the whole of the Australasian colonies (inclusive of New Zealand and Tasmania), 172,371 bushels.

SHARE THE RESPONSIBILITY.

The farmer comes in from his field and says to his wife, "That blasted agent fooled me again. Of the fifty trees I planted, ten are as dead as 'Moses.'" Every year, and on countless farms, these are the questions: Has the buyer a right to expect every tree to grow? Why do the trees sometimes fail? Should the seller replace free of charge? Trees and plants, having life, cannot be handled commercially like sugar and stovewood, hoes and wheelbarrows, meat and molasses. The life principle is in danger from the time they are lifted from their first place until permanently located in orchard or garden. Large losses indicate ignorance or carelessness somewhere.

Both buyer and seller share the responsibility, and hence should share the losses. Replacing at half price is a good adjustment. Small losses of, say one in ten, the buyer should put up with and call himself a lucky man.—The Fruitman, Mt. Vernon, Ia.

Long and Short.

F. M. Hartman, Dansville, N. Y., has plums, cherries, pears.

J. C. Hale, Winchester, Tenn., offers 2,000,000 peach trees, well graded.

Raffia can be obtained of August Rolker & Sons, 52 Dey street, New York City.

The P. J. Berckmans Co., Augusta, Ga., have a list of offerings in another column.

Peach trees can be obtained of the Alabama Nursery Company, Huntsville, Ala.

Grapevines and currant plants are specialties with Wheelock & Clark, Fredonia, N. Y.

Evergreen and forest tree seedlings, ornamental trees, shrubs, etc., at R. Douglas' Sons, Waukegan, Ills.

100,000 peach trees, 2,000 Irish Juniper, 2,000 plum trees, are offered by C. L. Longsdorf, Floradale, Pa.

W. C. Reed, Vincennes, Ind., offers apple, peach, Carolina poplar by the carload; also cherry, pear, Japan plums.

California fruit, apple, plum and peach trees at West Jersey Nursery Co's, Bridgeton, N. J.; also Marianna plum stock.

Apple seedlings, Osage orange, Black and Honey locust, free from hot wind influence are offered by A. E. Windsor, Havana, Ill.

Roses, American field grain plants, all varieties; orange trees, budded or grafted pear trees and a complete line of nursery stock may be had of the Griffing Bros. Co., Jacksonville, Fla.

Natural peach pits, crop of 1900, gathered from the mountains of Western North Carolina, near the Tennessee line, by collectors who have been collecting them for years, and who have always given good satisfaction, are offered by W. T. Hood & Co., Richmond, Va. They may be able to use some nursery stock in exchange.

The Syracuse Nurseries, Smiths & Powell Company, Syracuse, N. Y., offer a general assortment of budded apples, standard pears, plums, and an extra choice lot of peaches; also a fine lot of ornamental trees. They issue no trade list, but are pleased to make low prices by letter. They also have a fine assortment of extra size apples, pears, plums and cherries, at low prices in order to clear the grounds.

FRUIT AT BUFFALO.

In a communication to the American Agriculturist, F. W. Taylor, superintendent of the horticultural exhibits says:

The pomological exhibits of all former expositions have consisted almost entirely at first of preserved and processed fruits. Such exhibits possess much merit, and they keep the space well covered until fresh fruits are available. At the Pan-American it was desired that every state should show examples of such fruits as may be kept in good condition by the use of artificial refrigeration until after the season of the opening, or during the months of May, June and July. The use of ammonia refrigeration, has, for the most part, grown up so far as its practical application to preserving fruit from decay is concerned, since the World's Columbian exposition was held.

It seemed necessary, therefore, to get all the facts possible before those who might have fruit of the crop of 1900, which they could keep over for the opening weeks of the exposition. To reach this end a circular was prepared which gave such practical reports of results that had been produced and could be expected to follow, as would enable intelligent plans to be laid with regard to the handling of the fruits that might be desired held for 1901. This circular was sent to the members of all the leading horticultural societies. Acting either independently or following the lines laid down in the circular several carloads of apples were placed in storage by various states, some at home and some at Buffalo, ready for use in the earlier weeks of the exposition. The result of this forethought and foresight has been noticeably apparent. Certainly no exposition has ever, in May and June, shown such splendid fruits in such great abundance during what is usually an "off" portion of the season.

The states participating in the apple exhibits, showing the crop of 1900, have been New York, which exhibited 358 varieties, the largest number, Illinois, Missouri, Ontario, Oregon, Michigan, Connecticut, Maine, Virginia, Minnesota. The varieties most noticeable by reason of their plentiness have been Esopus Spitzenburg, Yellow Bell, Lady, Ben Davis, Wine Sap, Jonathan, York Imperial, Newtown and Baldwin. The characteristics of the varieties frequently change as they pass through storage and are opened and placed in the open air. Some varieties which come out in apparently excellent condition last only a few hours or days, while others will endure even in the heat and dust of an exposition, in good form and flavor for two weeks or longer. This is one of the most important characteristics to be studied and recorded, and to be worked out and made the subject of a report later.

The method of installation is always a fruitful theme for discussion and disagreement. The two systems may be designated as pyramidal and flat. In showing fresh fruits of all sorts, no method can give the appearance of enormous mass and splendid color as can the flat. Tables built uniformly 30 inches in height, painted white, slightly tinged with cream, covered with white plates bearing the splendid specimens of winter apples, Catawba grapes and pears, are more effective than any other possible kind of installation. For jars

of processed or preserved fruits, pyramidal installation is usually effective and satisfactory. The Illinois exhibit produces good effects here, as was done at Chicago and at Omaha, by receding, stair-shape shelving with the risers covered by mirrors. This has been facetiously called the barroom style, referring to the lavish use of mirrors, but the many favorable comments indicate that it is attractive to a great number of visitors.

NURSERYMEN'S NAMES.

An English author, says Meehan's Magazine, laments that the nurserymen of his country still doggedly continue to use the botanical names employed by Don, Loudon and others, though it has been clearly shown that there are other names which, under the "rules of priority," ought to have been adopted by these well known writers. But surely the English nurserymen may plead for mercy as against justice in a case like this. The nurseryman should not suffer because a good man went wrong. The names of Don and Loudon have entered into the commerce of the world, and to change his catalogue names annually,

however justly it may be proved he should do under botanical rules, would drive the nurseryman's business to endless confusion. There would be as much difficulty in filling orders as he now finds under the numerous common names. Now he is under continual reproof. "You have sent me the dog flower instead of the cat plant I ordered," writes one, and another declares, "Instead of the 'Blue as Blazes,' I received the 'Devil in the Bush.'" He finds botanical names his only safety.

We can all admire the heroism of the man who can stand still and have his head knocked off "because it was so nominated in bond." Even Shylock had to admit that his pound of flesh must go. So all of us grant that the "law of priority" ought to prevail in plant names; but in view of the inevitable confusion that must arise from its enforcement, we can only hope that some botanical Portia will turn up in time, so that the poor nurseryman may not lose his "blood" as well as his "flesh" by the changes.



FREDERICK W. TAYLOR,
Superintendent of Horticulture.

WESTERN WHOLESALE ASSOCIATION.

The semi-annual meeting of the Western Association of Wholesale Nurserymen was held at the Centropolis Hotel, Kansas City, July 9th. Morning session was called to order by President A. L. Burke. Roll call showed thirteen firms present. Consideration of membership applications and certain rules followed the secretary and treasurer's reports, and occupied the forenoon session. At the afternoon session the aggregate stock report showed quite a large increase in planting of some kinds of nursery stock. Mr. Skinner moved that the usual suggestive price list be postponed. Carried.

A statement of wrong-doing on the part of certain railroad companies was read, and their refusal to treat justly was noted. No action was taken.

The matter of insect pests injurious to nursery stock was thoroughly discussed, resulting in the appointment of Messrs. Youngers, Bagley and Stannard as a committee on experimental supervision.

Messrs. Bernardin, Starke and the secretary, E. J. Holman, were appointed a committee to prepare a program for the December meeting.

PEAR AND APPLE. •

Superiority of the French Stocks for Northern Planting—Single Advantage of Japan Stocks Applies Only to Southern Planting—American Apple Stocks for Grafting, French for Budding—St. Julian Plum, Myrobolan and Mariana Compared.

Editor NATIONAL NURSERYMAN:

I should be pleased to have your advice on the following in your valuable paper:

1. I was informed lately that the union of other varieties of pears on Kieffer stocks was not liked by nurserymen in general. What seem to be the objections?
2. Do you think the Japan pear stock superior to all others? Why?
3. Are native apple stocks as good as French stocks? If not, why? If so, what variety is believed to produce the most satisfactory stocks?
4. Will the pits from Abundance and Red June plums produce stocks suitable to bud other varieties on? How would the stocks from the Lombard seeds do? Or would the Myrobolan be better for all varieties?

W. S. N.

Glen Rock, Pa., June 17, 1901.

1. Kieffer have not been used long enough to determine definitely either their good or bad qualities.
2. Japan pear stock are not now used to any extent in the North and their use in the South is being greatly curtailed. French stocks are superior in all respects for northern planting. The single advantage possessed by the Japan stocks, i. e. thicker and stronger foliage less subject to leaf blight and hence easier and surer to take a bud, applies only to southern planting. Trees grown on these stocks are generally considered less hardy, shorted lived, and subject to all the ills the pear is heir to.
3. Western grown apple stocks are better for grafting purposes, as the nurserymen can get two or more grafts from a single seedling. The French are superior for budding, as they are branched roots. The American grown are nearly all from French seed.
4. St. Julian plum stock makes the best orchard trees and is the stock generally used in European nurseries, but Myrobolan makes the best nursery tree, and the latter is the stock almost exclusively used by growers of European sorts of plums in the United States. Mariana is largely used in the West and is undoubtedly a variation of the Myrobolan. Americana sorts do very well on this stock.

BAGSHOT RHODODENDRONS.

"Again this season the firm of John Waterer & Sons, Ltd., of the Bagshot Nurseries, Surrey, are making a rhododendron display in the gardens of the Royal Botanic Society, Regent's Park," says the Gardeners' Chronicle, London, Eng. "Those, therefore, who desire to see a representative collection of this most useful of all flowering shrubs may do so during a visit to London without having occasion to travel into any of the more or less remote districts of Surrey. We have many times remarked upon the ease with which rhododendrons may be

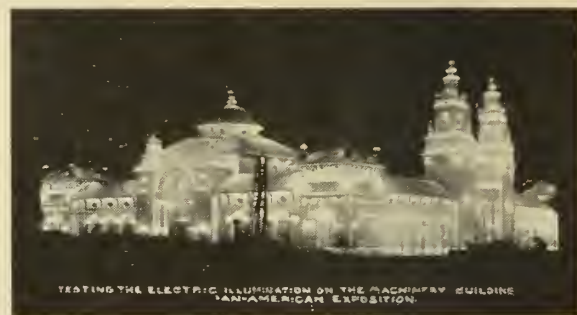
transplanted, after it is seen which plants have the most flower buds upon them, and this annual show of Messrs. Waterer's affords striking evidence of this fact, for some of the specimens are of considerable size."

DR. HERMANN SCHROEDER.

A local history in Illinois, referring to one of the oldest nurserymen of the country, says:

There are always a few men in every community who are recognized leaders in the growth of the localities with which they are connected, who are the promoters of its enterprises, the founders of its industries and the advocates of all the varied interests which will contribute to the prosperity and well being of their fellow-townsmen. Of this class Dr. Schroeder is a representative. He has been one of the most potent factors in the upbuilding of Bloomington, where for almost half a century he has made his home.

Dr. Schroeder was born in the town of Althaldensleben near the city of Magdeburg, in Prussia, May 22, 1821. His father was one of Napoleon's old soldiers who gave the signal to retreat from Moscow. On his deportation to Siberia he escaped from Russian slavery, and found after a long wandering a home and wife in the village of Althaldensleben. There the Doctor was born in a year of great famine, and taken in a basket to the Kloyster fields by his mother who worked therein. He was given the best educational advantages afforded in the schools of the town, and his parents, who were Catholics, destined him



Electric Illumination—Pan American.

for the priesthood. Aristocratic people and even the bishop became interested in him, for he was an excellent scholar, and furnished him the means of study, but after his mother's death he abandoned the idea of entering the priesthood and commenced the study of natural philosophy and medicine, but while thus engaged his benefactor, Herr Nathusius, died and he commenced the study and work of an architect, as it would sooner bring him financial returns, and he must depend upon his own exertions for livelihood. He met with excellent success in the new undertaking and soon became the contractor of government buildings. He prospered financially, but his love of republican principles led him to discuss the same from the public platform and through the press, and in the great historical year, 1848, he was to be found on the barricade and among the revolutionary speakers. Soon, however, a contra-revolution took place and Doctor Schroeder, together with many other revolutionists, was persecuted and would have been shot, had he not made his escape at night and fled America. In order to effect his escape he was obliged to kill a soldier who was pursuing him, and taking his gun, the Doctor brought it with him to America, it being the first needle gun in this country.

Hidden in one of the rotten, wooden ships Dr. Schroeder made his way to New York. He could not find employment there and so he went as an emigrant to Cleveland, Ohio, where he gained some kind friends and again took up the study of medicine, becoming, after two years of preparation, a physician of considerable note. He practiced in Mansfield and in Mount Gilead, Ohio, for a time and then by wagon started westward, reaching the little town of Bloomington, Illinois, in 1851. Upon the prairie, near the present site of the Illinois Central depot, he constructed a shanty out of the first log house ever built in the town, and began the practice of medicine, eventually directing his energies into other channels. He dealt quite extensively in real estate

for a time, first purchasing nine town lots on which he erected thirteen houses from lumber he had made from the timber on a forty-acre tract of land that he had purchased. Rents were high then and accordingly the investment was a profitable one. He soon accumulated money to buy from the Illinois Central railroad two hundred and forty acres, now the south side of El Paso, and eighty acres on which the city of Gilman has been built. He named the place Schroederville, laid it out in town lots, and in 1856 sold it. He then commenced grape culture, probably establishing the first vineyards in the west. He was particularly successful in the propagation of grape vines, sold many million plants all over this country and even shipped to France and Germany. He continued in that line until a short time ago, and is even now engaged in horticultural pursuits upon his valuable land, comprising 100 acres which adjoins the city.

In 1866 he erected the Grand Opera House, the first in the city. In 1869 he aided in building Minerva Block,—for some years the finest in the city—and still owns the store at No. 316, in that block. Coal had been found along the creeks and in the hillsides in some sections of Illinois, but the Doctor thought it must surely underlie the prairies also. Accordingly he secured scientific experts to make examinations, and coal was found. He became the owner of nearly one-fifth of the stock of the Bloomington Coal Mine Company, and was twice its president, but sold out in order to devote his time to the nursery business. He also established a vinegar and cider factory, and developed a large and profitable business, but eventually disposed of the plant.

In 1875 Dr. Schroeder went abroad with his family and traveled all over Europe, where he first partook of the noted summer sausage, which sold for seventy-five cents per pound. After his return he began the manufacture of sausage, in 1878 erecting his steam sausage and meat pressing factory on South Main street, Bloomington.

EUROPEAN NURSERIES.

Professor Samuel B. Green, St. Anthony Park Minn., who recently visited European countries writes as follows in the *Minnesota Horticulturist* :

There are many scenes in European nurseries which strike the American nurseryman as peculiar. Among these there is perhaps no way in which they differ so much from us as in the use of hand labor, which in the European nurseries almost entirely takes the place of horse labor. This is undoubtedly due to the fact that hand labor is so very cheap there. It is a common sight, too, to see women at work hoeing and in the general work of keeping down weeds. The great demand for trees trained in espalier and fan-shaped forms necessitates the growing of these in the nurseries, and they are generally trained flat against several, perhaps six stakes to each tree. Thus an apple tree, instead of growing as with us, is very likely trained in fan-shaped form, extending from one row nearly to the other. Such plants must be handled with great care and occupy so much of the land that it is out of the question to get in amongst them with a horse.

The growing of gooseberries in tree form is also an object of interest, and in this section the gooseberry is a very important fruit and is eaten in a raw state in large quantities. Occasionally one will see both the currant and gooseberry on the same stock, and each worked about three feet from the ground.

In response for a demand for trees for setting out during the growing season, the larger nurserymen grow apple, pear and other trees in pots, tubs or willow baskets, in which they may be moved at any season of the year. This is a feature that in some sections of this country might perhaps be adopted to some advantage, at least in a small way. It frequently happens that in some of the retail nurseries in this country, where

a good retail business is done in high priced ornamentals, a customer comes around just after the season is past, or even late in June, and is willing to pay a good price if he can have his planting work done that season. It is under such conditions that it might be well here to grow some plants in pots or tubs. I noted that it was a common practice to grow evergreens in beds, even after they were, perhaps, a foot or more high. I inquired the reason for this and asked why it would not be just as well to plant in long rows and to cultivate with some hand cultivator, and was informed that it would not do to walk between the rows of seedlings, as it would interfere with their growth, and at the same time I was given a sort of look as though I was not quite on to such matters and had simply displayed my ignorance.

Among the few cases in which I saw a four-footed animal assisting in nursery work was where a small burro was used for drawing a spraying apparatus through the rows in a nursery near Berlin. This spraying apparatus, by the way, was of much interest to me from the fact that the power for forcing the spray came from carbonic acid, which was generated in the receiver by the use of acid and marble dust in the machine itself. It was too heavy and clumsy, however, to be practical; but it may possibly indicate the direction in which improvements should work in this country. It is certainly a novel idea.

It seemed to me that the nurserymen and seedsmen in Europe lay special stress on getting some land that lies along a railway track, and then making it beautiful with a succession of flowering and foliage plants. Near by, of course, they will have a large but neat sign indicating whose establishment it is. This form of advertising seemed to be a special feature among English nurserymen, and a very pleasant feature it is. There is a dignity and high standard and truthfulness about such advertising which no printing will take the place of. When such places are by the side of some suburban line that is patronized by hundreds of thousands of people daily, many of whom come to note the frequent changes in landscape effects produced during the season, I am inclined to think it a very desirable form of advertising.

COMMERCIAL ORCHARDING IN TEXAS.

An association of fifty orchardists will be organized in Denison, Texas, said an exchange last month. Extensive tracts of land have been purchased near that city; 18,000 peach trees will be planted this month. Early next month the Denison association will meet and select officers, and will probably take the first steps towards the establishment of a canning factory, an evaporating plant and a crate and box factory. The association expects to have 50,000 trees in the ground within the next two years. The fruit raised by the members of the association will be uniform in quality and limited in variety to three of the best peaches now on the market.

W. T. GOUGH, ABILENE, Kan., July 8, 1901.—“The NATIONAL NURSERYMAN is O. K. in every respect, and should have a good support.”

M. J. GRAHAM, ADEL, Iowa, July 13, 1901.—“Herewith find one dollar, for which please extend my subscription for one year. Your journal is indispensable to one who would keep in sight of the procession.”

Among Growers and Dealers.

P. Ouwerkerk sailed for Europe July 6th.

W. S. Hall has established a nursery at Hannibal, Mo.

Frederick Bimel has established a nursery at St. Henry, Ohio.

The storage buildings of L. Green, Troy, O., have been enlarged.

John Leppold, Haffey, Pa., has sold his nursery to William Lafferty.

George C. Rodding's California Smyrna fig has been named the Calimyrna.

Howard & Howard are proprietors of a new nursery at Spring Valley, Minn.

C. W. Chauncey and W. S. Marshall have established a nursery at Fresno, Cal.

E. F. Stephens, Crete, Neb., was awarded a diploma for his fruit sent to Paris.

The Milford, Del., nurseries have been incorporated with a capital stock of \$30,000.

State Entomologist Otto Luggar, of Minnesota, died at St. Anthony Park on May 21st.

George B. Galbraith, Fairbury, Neb., visited Philadelphia after the convention at the Falls.

Ex-President Wilson Peters, Troy, O., called on Western New York nurserymen last month.

W. A. Peterson, of the Rose Hill, Ill., Nurseries, has been yachting off the New Jersey coast.

The National Apple Shippers' Association will hold its annual meeting in Toronto, August 7th.

The opening of the new horticultural hall in Boston on June 2d was one of the horticultural events of the year.

During the latter part of June and in July Thomas B. Mehan made a tour of the nurseries of the Central West.

The Clinton Falls Nursery Company, Owatonna, Minn., has been incorporated with a capital stock of \$50,000.

E. Albertson, Frank Weber, Allen L. Wood, and Robert C. Berckmans visited Philadelphia nurserymen in June.

William Gibbs, foreman of the Phoenix Nursery Company, Normal, Ill., is on a tour of the eastern part of the country.

Professor Green of the Central Experiment Station, Minnesota, has received a consignment of apple scions from Russia.

W. T. Gough has purchased the interest of his partner, Mr. Carter, and is continuing the nursery business at Abilene, Kan.

M. Butterfield has started a nursery business at Farmington, Mo.; Jesse Butterfield will manage the Lee's Summit Nurseries.

The Messrs. Bagby of the New Haven, Mo., Nurseries entertained the members of the Missouri Horticultural Society in June.

G. Miller, of Anita, Iowa, says: "With me the sand cherry stock for plums has passed the experiment stage. I shall henceforth use it largely."

Thomas S. Ware, a noted grower of hardy plants in England, died May 30th, aged 76 years. He and Peter Barr became well known as growers of narcissus.

G. A. Gamble, Fort Smith, Ark., editor of the Arkansas Fruit Grower, argues against the free distribution of nursery stock by federal or state governments.

The dutiable imports of plants, shrubs and vines amounted to \$21,454 in May, 1901, as compared with \$52,303 worth in May, 1900, which shows quite a decrease.

The seventeenth convention of the Society of American Florists, incorporated by special act of Congress, March 4, 1901, is to be held at City Convention Hall, Buffalo, August 6 to 10.

Secretary R. B. Watrous, of the Citizens Business League of Milwaukee, has issued a special invitation to the Society of American Florists to hold its convention of 1902 in Milwaukee.

George C. Perkins, of Jackson & Perkins Company, who has been in ill health for the past year or more, has gone for a two months' cruising and fishing trip along the coast of Newfoundland.

Special Agent I. N. Mills of the Delaware railroads has completed his estimate of the peach crop for the season of 1901. It is 2,000,000 baskets. The estimate of last season's crop was 4,000,000 baskets.

W. H. Oakes, horticultural inspector for Stevens county, Washington, condemned a consignment of root grafts shipped from an Iowa nursery to W. B. Aris. The stock was infected with woolly aphids.—Northwest Horticulturist.

The new Rambler rose, Queen Alexandra, color pink with white center, is featured in the July 13th issue of the Gardeners' Chronicle. It has much the same habit as Crimson Rambler. It received a gold medal at the recent Temple Show.

Alfred G. Gelletly, Williston, Md., showed enterprise in exhibiting nursery stock on a float in a procession on July 4th at Denton, Md. The Denton "Journal" says: "It was rich in suggestion as well as an excellent advertisement of his stock."

August Rölker & Sons, 52 Dey street, New York, have sold to Reed & Keller their stock of florists' store supplies. Messrs. Rölker will limit themselves in the future to foreign and domestic bulbs, plants, seeds, nurserymen's and greenhouse stock, and will continue this line with increased energy.

Nurserymen at Shawnee county, Kansas, assert that 90 per cent. of the apple seedlings used in the nurseries of the United States are grown within a radius of fifteen miles of Topeka. It is estimated that between 600 and 700 acres of seedlings are growing in Shawnee county this year.—American Florist.

The International Society of Arboriculture was organized at Connersville, Ind., May 25, 1901. Dr. C. A. Schenck, of Baltimore, N. C., was chosen vice-president; John P. Brown, of Connersville, Ind., secretary and treasurer, and the Hon. J. Sterling Morton, of Nebraska City, Neb., was nominated for the presidency.

"I have succeeded in getting about a thousand seedling cherries from last year's seed," says Professor Green in Minnesota Horticulturist. "I intend to make quite a point of this growing of cherries from seed, as I think the opportunities of getting something more valuable than we now have for Minnesota are very good."

Charles H. Hooker, of Rochester, N. Y., has received the Barry Medal offered by the Western New York Horticultural Society "to the originator or owner of any new fruit or ornamental tree, shrub, flowering plant or vegetable, which shall be considered worthy of it." Mr. Hooker won on the merits of the red currant Perfection.

J. H. Wisner, Port Elgin, Ont., says in Canadian Horticulturist regarding the hardiness of American sweet chestnuts in the North: "I have grown them here in nursery rows for the past 25 years; have 50 of them permanently set out and in bearing, and have proved them to be perfectly hardy, the frosts of all these years never having injured even a single tip of any of them."

E. F. Stephens, of Crete nurseries, says an exchange, is interested in several nursery establishments in different portions of the semi-arid region in the west end of the state. His display of cherries, plums and other fruits from those nurseries was very interesting, and showed conclusively that with a proper mixture of "brains" the western portion of Nebraska will make fine fruit.

Architect Burnham, Landscape Gardener Olmstead and Charles Moore, clerk of the senate committee of the District of Columbia, a committee appointed by the committee referred to who have been visiting the capitals of Europe for a few weeks to get suggestions to be used in the plan of enlarging and beautifying the park system of Washington, sailed for home from London on July 20th.

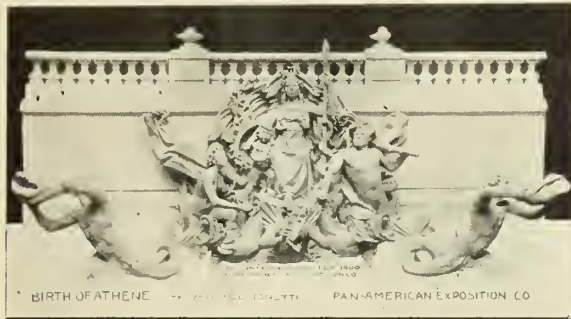
English publications print pictures and sketches of Thomas H. Cook, aged 33, who has been appointed by King Edward VII. to be head gardener at the royal gardens, Sandringham. Charles Turner, Slough, England, has been appointed, by royal warrant, nurseryman to the king; W. Paul & Son, Waltham Cross, are rose growers to the king; Messrs. Sutton & Sons, Reading, and J. Carter & Co., High Holborn, seedsmen to his majesty.

Under date of July 13th State Entomologist E. P. Felt, of New York, says: "Praying mantis eggs have hatched and living young freed in Washington Park, Albany; and they have also been liberated in Lockport, Niagara county. Egg clusters sent to other localities should have hatched before this." The praying mantis was illustrated in a recent issue of the NATIONAL NURSERYMAN. It is a beneficial insect, as it feeds upon insects injurious to vegetation.

Recent Publications.

Doubleday, Page & Co., New York, announce the publication of "Birds That Hunt and Are Hunted," by Neltje Blanchan; "The Butterfly Book," by Dr. W. J. Holland; "Flame, Electricity and the Camera," by George Hies.

The Gardeners' Chronicle, London, England, issue of July 6th, will be treasured by rose growers and lovers of the rose generally. Its reports of the Temple show by the National Rose Society are especially valuable. Its illustrations are of great interest, especially the beautiful half-tone engravings of the four-page supplement showing Climbing Devonensis, Souvenir d' Elise Vardon, Countess de Nadaillac, the Bride, Prince of Wales, Longworth Fairy.



Architectural Group—Pan-American.

"The World's Work" covers everything of important contemporaneous interest and achievement with no waste of words. Its illustrations are of generous size. It is sewed like a book. It is trimmed. No list of famous contributors has been sought—the idea of the magazine well carried out is relied upon to win respect. A section tells the busy man what are the tendencies in the chief businesses and professions, and without statistics or dry facts. 25 cents a number, \$3.00 a year. New York: DOUBLEDAY, PAGE & CO.

The issue of July 6th of the Gardeners' Magazine, London, England, was a special rose number. A fine colored plate of the tea-scented rose, Madame Moreau, formed a supplement. Many interesting articles, profusely illustrated, describe roses from various standpoints. The exhibition of the National Rose Society in the Temple gardens is reported at length. In an article on "Some Eminent Rosarians" pictures and sketches of W. F. Cooling, H. P. Landon, G. Moules, B. E. Cant, G. W. Piper, and R. Foley Hobbs are given.

THE INSECT BOOK—By Dr. L. O. Howard (Chief of Division of Entomology, Department of Agriculture). A popular description by the foremost authority in this country of bees, wasps, ants, grasshoppers, flies and other North American insects. It has full-life histories, giving an intimate account of the most wonderful facts in that insect world all around us, which is so incompletely known, even to scientists. There is to day almost nothing that covers authoritatively, yet popularly, this vast field, so that the present volume has special importance. With the 300 text cuts and the 16 colored and 32 black and white pages made direct from the insects themselves, the subject is abundantly as well as beautifully pictured. Uniform with "Nature's Study" books. Price, \$3.00 net. New York: DOUBLEDAY, PAGE & CO.

The tenth annual report of the Missouri Botanical Garden, for 1901, has been issued under the direction of Dr. William Trelease, the director. The contents include reports of the officers of the board and the director and scientific papers on the following subjects: "A Disease of the Black Locust," by Herman Van Schrenk; "Crotons of the United States," by A. M. Ferguson; "An Undescribed Agave from Arizona," by J. W. Toumey; "A Critate Pellea," by Dr. Trelease, also, "A Pacific Slope Palmetto," by the same author; and "Garden Beans Cultivated as Esculents," by H. C. Irish. Each of these papers is illustrated by half-tone engravings. Including the border of the newly graded addition and the woody plants destined for the North American synopsis but yet in nursery, the Garden now contains 9,194 species and varieties of plants (including

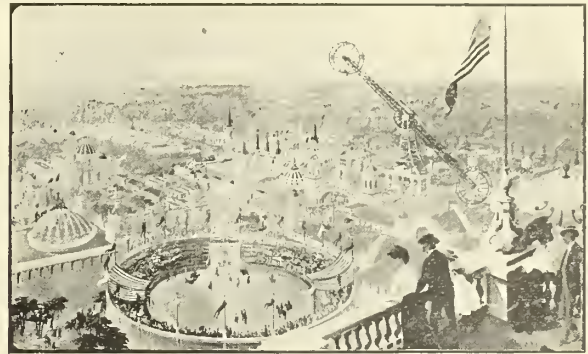
annuals which were cultivated in their season and are likely to be cultivated or replaced by others another spring) of which 5,547 are annuals or hardy perennials, and 3,647 are cultivated under glass.

Yearbook of the United States Department of Agriculture, 1900. Pp. 888, frontispiece, pls. 87, figs. 88. As provided by law, the first part consists of the annual report of the Secretary of Agriculture. The second part contains thirty-one articles, five more than last year. While the Yearbook for 1900 is not specially devoted to a review of the several Divisions, it is distinctively representative of the work of the Department. With the exception of two articles prepared in the Division of Publications, every article covers some important line of work carried on in the Bureau, Division or Office from where it emanated. The two articles prepared in the Division of Publications, while not relating directly to the work of the Department or to practical agriculture, will, it is believed, be found of interest to American agriculturists. The appendix contains the directory of the Department, the directory of colleges and experiment stations, lists of State officials in charge of agriculture, secretaries of State agricultural societies, officers of various agricultural and kindred associations, statistics of farm crops, and other information of interest to the farmer. A new feature of the appendix is the publication of requirements for admission to the agricultural departments of the land grant colleges, and the cost of attendance. The small quota (only 6 per cent.) of this publication assigned to this Department is insufficient to supply even its regular correspondents and coworkers, and miscellaneous applicants are, therefore, respectfully referred to their Senators, Representatives, and Delegates in Congress, to whom the other 94 per cent. is allotted for distribution. The Superintendent has them for sale at 75 cents per copy.

DEMAND FOR BETTER APPLES.

On the subject of marketing fruit, Professor Bailey says:

My eyes were opened when I visited the old world. I had read about their painstaking methods of pruning and thinning, but it seemed to me trivial. I remember, on going to see a famous apple orchard that I was impressed with the large building in which the apples were kept and packed. It was a building with a floor space as big as this



Pan American as seen from Tower.

room, but there were only two acres of the orchard. The trees were trained on wire trellises, not more than six feet high and ten feet apart. The buds on the trees were all known and perhaps counted. Now, how could they make money on apples in that way? I will tell you. They sold those apples for thirty to forty cents apiece. I do not think we have much demand for apples at that price, but there is demand for better apples than we raise. I heard a man say a few days ago that the best crop he had this year in New York was watermelons. Think of it—and Georgia watermelons sent all over the country! The dealer said they were not so big as the Georgia melons, but it was the taste that sold them. We once grew hothouse tomatoes and thought we must get them on the market before February or March, because after that the Florida tomatoes would be in the market; but we found ours would sell for double the price of the Florida tomatoes at the same time. I believe thoroughly in Kieffer pears, but I do not believe in growing them everywhere. We must grow those things that thrive in our locality, and that our special market wants.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance, - - - - -	\$1.00
Six Months, - - - - -	.75
Foreign Subscriptions, in advance, - - - - -	1.50
Six Months, " " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Robert C. Berckmans, Augusta, Ga.; vice-president, R. J. Coe, Fort Atkinson, Wis.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.; William Pitkin, Rochester, N. Y.

Committee on Transportation—A. L. Brooke, N. Topeka, Kan.; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; N. W. Hale, Knoxville, Tenn.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y.; Howard A. Chase, Philadelphia, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. H. Dayton, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., AUGUST, 1901.

DECREASE OF SCALE.

When it was proposed to amend the New York state law relating to the inspection of nursery stock so that it should require the fumigation of all stock, a compromise was affected by the agreement that should the records of the commissioner of agriculture show that there had been an increase in the spread of San Jose scale during 1901, the objection of the nurserymen to the proposed amendment would be withdrawn.

So confident were the nurserymen that the investigation would show a decrease in the amount of San Jose scale that this proposition was accepted at once.

A press despatch from Albany, published throughout the state in the daily press on July 13th, says:

ALBANY, July 13.—The State Department of Agriculture has been most active in protecting the fruit trees of the state from the San Jose scale. At the beginning of the season

inspectors were stationed at New York city, Geneva, and Rochester to look after shipments of nursery stock arriving in the state. Several lots were found to be infected.

Up to July 6th, 326 orchards, embracing 4,776 acres, and containing over 56,000 trees, were examined. In less than fifty of the orchards the scales were found.

The department reports that the maple worm or forest caterpillar has appeared in great numbers in the apple and plum orchards of the state and in some sections the canker worm has done great injury.

THE DROUTH IN THE WEST.

The daily press has kept the nurserymen posted as to the drouth in the Central West. F. A. Weber, Nursery P. O., St. Louis Co., Mo., wrote to the NATIONAL NURSERYMAN under date of July 11th.

"We are having one of the worst drouths we have ever experienced, have had no rain for five weeks, with the thermometer ranging from 90 to 110 degrees in the shade; it is to-day in the coolest place we can find 106 degrees, with a wind as hot as if it came out of an open furnace. Blackberries and raspberries have dried up on the vines; peaches and apples are dropping, and in some cases in uncultivated orchards are shriveling on the trees. Truck gardens are dried up; corn will be a total failure; in fact, the last five weeks have been the worst on record.

"The writer often recalls to mind the remarks made on a number of occasions throughout the East there were twenty-six days of rain in May; could this only have been divided, our crops would have been assured and the East would not have known the difference; twenty-six days of rain in one month is no doubt rather moist, but twenty-six days of heat as we have had it for the last month with no rain, makes it very uncomfortable, besides being dry."

WONDERFUL FACTS.

Among the season's publications of works of special interest to nurserymen is "The Insect Book," by Dr. L. O. Howard, chief of the Division of Entomology, Department of Agriculture. This is a popular description by the foremost authority in the United States of bees, wasps, ants, grasshoppers, flies and other North American insects. It has full life histories, giving an account of the most wonderful facts in the insect world which is so completely unknown even to scientists. The layman is generally of the opinion that this subject has been nearly exhausted by the scientists. Dr. Howard says at the outset, regarding the order Hymenoptera, for instance: "It is a very large order and comprises about 30,000 described species; but the enormous number of undescribed species, particularly of the smaller parasitic forms inhabiting tropical regions and out-of-the-way localities would probably swell this number to more than 300,000. To indicate the work still to be done in this order it is safe to say that a single day's collecting in Central Park, New York, almost under the windows of the great American Museum of Natural History, or in Logan Square, Philadelphia, within 200 yards of the Academy of Natural Sciences, would result in the capture of a number of species new to science."

"Most books tell what is known," says Dr. Howard, "but we shall here try to point out what is not known, but which, nevertheless, can be more or less easily found out." The author encourages the study of insects and indicates frequently where research is especially needed in the interest of science. He describes entertainingly the work of the carpenter bees, the leaf-cutting bees, and the potter bees, and gives the life history of a bumble bee. He shows how the digger wasp, attracted by the vibratory notes of the cicada, during the latter half of July, is often seen flying about the trees from which the song comes. Suddenly the regular note of the harvest-fly ceases and in its stead a distressing, discordant cry will be emitted; the wasp has caught his victim and with a quick sting has paralyzed it and thrown it into a comatose condition from which it never recovers. The wasp carries away the cicada to its burrow. An egg is laid upon the body of the cicada, and the larva of the wasp feeds upon the cicada.

Nurserymen will be especially interested in Dr. Howard's description of the gall-flies which cause the formation of galls upon trees; the ichneumon flies which attack caterpillars and may be responsible for the saving of great damage to the shade tree; of cities as well as to agricultural crops; the seventeen-year locust, due next year; the long list of bugs; the praying mantis and other insects for the mention of which there is not space.

The book is illustrated profusely with original plates photographed from insects collected especially for the purpose or taken from the collection of the United States National Museum. Suggestions regarding the collection of insects, the apparatus needed, etc., are given; also, a bibliography of the subject and a copious index. The volume is uniform with "Nature's Study" books and is published by Doubleday, Page & Company, New York.

AMERICAN POMOLOGICAL SOCIETY.

The twenty-seventh biennial session of the American Pomological Society will be held at Buffalo September 12 and 13, 1901. Among those announced to speak are L. H. Bailey, J. H. Hale, S. D. Willard, L. A. Goodman, H. M. Dunlop, Geo. T. Powell, Wm. B. Alwood and Judge Fred. Wellhouse. The fruit exhibit of the society will be held in the Horticultural Building at the Exposition, and all exhibits of the society will be eligible for Exposition awards.

The officers of the society are: President, Charles L. Watrous, Des Moines, Ia.; first vice-president, Thomas Meehan, Germantown, Philadelphia, Pa.; secretary, William A. Taylor, 55 Q street northeast, Washington, D. C.; treasurer, L. R. Taft, Agricultural College, Michigan; chairman executive committee, Charles W. Garfield, Grand Rapids, Mich.

GOVERNMENT ARBORETUM.

Secretary Wilson has decided to placard the splendid collection of trees in the Agricultural grounds, something which should long ago have been done, says the Philadelphia Public Ledger. He has assigned the work to Mr. B. T. Galloway, Chief of the Bureau of Plant Industry, and the work will be done in a thoroughly systematic and scientific manner. It is known to but few persons that there is growing in the Agricultural grounds probably the finest collection of trees in the

world. For nearly forty years the late William Saunders, superintendent of the grounds, occupied himself at intervals in the collection of rare trees. Mr. Saunders was a trained horticulturist and an ardent botanist, and no better mind could have been interested in the task which he set for himself. With great painstaking and persistent application he enlisted the sympathies of American officials in the consular service and naval officers, and persuaded them to secure for him from all parts of the world the trees which he desired to welcome into the government arboretum.

IMPROVEMENT ASSOCIATIONS.

It may be of benefit to nurserymen to turn their attention to work of the National League of Improvement Associations, the headquarters of which are at Springfield, O. John L. Zimmerman is president; D. J. Thomas corresponding secretary.

Some of the objects in which town and neighborhood improvement associations and other organizations are interested, and for which the National League of Improvement Associations seeks increased interest and wider co-operation are:

Arbor Day, artistic home planting, botanical gardens, children's improvement associations, cemetery improvement, care of vacant lots, county park systems, factory planting, flower and fruit mission, floral exhibitions, foot-paths for reaching scenic beauties, improvement of city back yards, increased attractiveness of farm life, lectures on nature and outdoor topics, model children's gardens, nature study, neighborhood gardens for boys, parks for all the people, private residence parks, prize awards for home planting, popular instruction in landscape gardening, pleasing church exteriors and surroundings, photography as promotive of improvement, preservation of native plants, railway station grounds, school gardens, school yard planting, street, road and river side planting, vacant lot cultivation.

These are subjects which bear directly upon the nursery trade. The league invites the co-operation of horticultural societies.

GEORGIA HORTICULTURAL SOCIETY.

The twenty-fifth annual session of the Georgia Horticultural Society will be held at Milledgeville, Ga., on August 7-8. The president of the society is P. J. Berckmans; the treasurer L. A. Berckmans, Augusta, Ga.; the secretary G. H. Miller, Rome, Ga., all well known nurserymen. The society was organized in 1876 and for years the railroad companies of the state have granted free transportation to the annual meetings. This year the certificate fare and a third plan has been adopted. It is proposed to devote a large part of the meeting to a discussion upon insect pests and the state law as now enacted. Eminent scientists of national reputation have promised to attend the sessions and their presence will largely add to the success of the society.

CHOCTAW SEEDLESS BLACKBERRY.

Samples of the Choctaw Seedless blackberry were received from G. A. Gamble, Fort Smith, Ark., in the latter part of June. The berry is of pleasant flavor, large and juicy. There were seeds in the berries we received, but compared with some blackberries these were nearly seedless. The six points claimed for this variety are: Size, flavor, shipping quality, hardiness, productiveness, seedlessness. It is declared that the Choctaw Seedless is free from rust and bears annually, that it begins ripening just after the early harvest.

SOUTHERN ASSOCIATION.

Annual Meeting at Asheville, N. C.—Improved Conditions Reported—Visit to Biltmore Nurseries—Date of Meetings Changed to January to Accommodate Members—J. Van Lindley the President; W. Lee Wilson, Secretary and Treasurer—Resolutions.

The Southern Nurserymen's Association was called to order at Battery Park Hotel, Asheville, N. C., July 16th, by President N. W. Hale at 10 A. M.

An address of welcome was delivered by J. Van Lindley, of Pomona, N. C. W. Lee Wilson replied in behalf of the Association. The secretary's report was read and approved. The treasurer's report showed expenses \$120.30 and a balance on hand of \$36 99.

The report was referred to an auditing committee composed of H. B. Chase, W. T. Hood and J. C. Killian.

The committee on transportation reported everything running smoothly. Very few complaints were received, and conditions of transportation were considered to be much improved in the South. The railroads are making every effort to help the nurserymen on to success both as to freight rates and the dispatch of nursery stock. The report was adopted.

Prof. Franklin Sherman, Jr., state entomologist for North Carolina, read a paper on "Some Thoughts on Nursery Legislation."

At the afternoon session Mr. Merrill, representing the manager of Biltmore Nursery and estate, presented an invitation to the Association to view the nurseries and estate under his supervision. The invitation was accepted and 4 o'clock was set for the hour of departure.

The minutes of the meeting of 1900 were read and approved. Moved by J. Van Lindley and seconded by Mr. Killian that the by-laws be changed so as to read: "The time of meeting shall be the third Monday in January."

Mr. Van Lindley—"I think this change will result in good to the Association. Many are kept away at this season of the year on account of having peach crops to handle."

The change was made by a unanimous vote.

Charleston, S. C., was selected as the next place of meeting on account of the Midwinter Exposition that will be held there which will enable members to attend both at the same time.

The committee appointed to audit treasurer's report handed in their report as follows: "We, your committee, have examined the report of the treasurer, together with all vouchers, and find same correct. Respectfully submitted, H. B. Chase, W. T. Hood, J. C. Killian." The report was adopted.

The following officers were elected for the ensuing year: J. Van Lindley, Pomona, N. C., president; H. B. Chase, Huntsville, Ala., vice president; W. Lee Wilson, Winchester, Tenn., secretary and treasurer.

Executive Committee—N. W. Hale, chairman, Tennessee; W. T. Hood, Virginia; Chas. T. Smith, Georgia; W. L. Killian, North Carolina; W. D. Griffing, Florida.

Transportation Committee—G. H. Miller, Rome, Ga.; L. A. Berckmans, Augusta, Ga.; N. W. Hale, Knoxville, Tenn.

Legislative Committee—S. Dougherty, Winstead, Tenn.; G. L. Tabor, Glen St. Mary, Fla.; J. C. Hale, Winchester, Tenn.

Mr. Wilson presented the following resolutions which were unanimously adopted:

Resolved, that the thanks of this Association be extended to Mr. E. P. McKissack, Proprietor of the Battery Park Hotel, for the courtesies he has extended to the Association and the kind manner in which he has entertained us.

Resolved, the thanks of this Association be extended to Mr. McNamee for the courtesies extended the members of the Association in showing them over the Biltmore Nurseries and estate.

The following resolution was offered by Mr. Smith of Georgia, and unanimously adopted:

Resolved, That the thanks of this Association be extended to our retiring president and to our secretary and treasurer for their untiring efforts in behalf of this Association.

TEXAS ASSOCIATION.

In conjunction with the Texas Farmers' Congress, the Texas Nurserymen's Association held an interesting meeting, July 23rd to 26th, at College Station, Texas. The following Nurserymen were present: E. W. Kirkpatrick, McKinney, Texas, President; J. B. Baker, Fort Worth, Tex.; B. L. Adams, Bonham, Tex.; F. W. Mally, Hulen, Tex.; R. H. Bushway, Alvin, Tex.; John F. Sneed, Tyler, Tex.; R. W. Holbert, Arcadia, Tex.; Col. R. G. Pickett, Floresville, Tex.; A. K. Clingman, Homer, La.; F. T. Ramsey, Austin, Tex.; C. C. Mayhew, Sherman, Tex.; C. P. Orr, Arp, Tex.; J. H. Higginbotham, Dublin, Tex.; G. A. Shattenburgh, Boerne, Texas; John S. Kerr, Secretary, Sherman, Tex.; Mr. Shamburger, Tyler, Tex.; S. Z. Alexander, Jacksonville, Tex.; J. H. Baker, Granbury, Tex.

Many members did not appear owing to season discouragements. Reports from a large part of the state show a good supply of stock on hand but suffering generally from a two months drouth, with a prospect, however, of seasonable rains which are expected, and now beginning to restore normal conditions.

There was a wide range of discussion on important subjects. There is a growing sentiment for a decided difference between wholesale and retail prices, with a tendency toward better grades, and better prices generally, realizing, however, great difficulty in uniform co-operation. Origination of new varieties adapted to our peculiar conditions is receiving much attention. "The Evolution of the Plum" by F. T. Ramsey and J. B. Baker is rich. In Prof. Mally's treatment of "Our Insect Friends and Foes" arsenate of lead appears far superior to the old forms of the poisons, as it does not scorch the foliage.

The Transportation Committee report no perceptible progress in their efforts for a reduction of tariff rates under the jurisdiction of The South-western Rate Committee.

Grain crops throughout Texas are reported poor, owing to the "wheat louse" and the drouth. Cotton, of which there is large acreage, now the main dependence for the money crop, is promising. The long drouth is being broken by copious showers which will greatly benefit cotton, though rather late to help corn; which, however, will make from one-third to one-half crop.

Officers for ensuing year: E. W. Kirkpatrick, McKinney, Texas, President; B. L. Adams, Bonham, Tex., Vice-President; John S. Kerr, Sherman, Tex., Secretary and Treasurer.

A budder, employed by Smith Brothers' of Concord, Ga., recently set 5,160 peach buds in one day. This beats all local records.

FILING OF CERTIFICATES.

Charles A. Wieting, Commissioner of Agriculture of the State of New York, has issued the following notice, which is of interest to nurserymen:

DEPARTMENT OF AGRICULTURE, STATE OF NEW YORK, }
Albany, N. Y., July 1, 1901. }

DEAR SIR—The Commissioner of Agriculture is prepared to issue duplicate Certificates of Inspection of Nursery Stock to be filed with the State authorities of other States. If you desire such duplicates, please fill out attached blank and forward to Chas. A. Wieting, Commissioner of Agriculture, Capitol, Albany, N. Y.

CHAS. A. WIETING, *Commissioner.*

Some states, do not, by statute, require the filing of duplicate certificates, but the control of insect pests is often left to the entomologist or other State officers who make rules regulating the transportation of nursery stock.

Any person desiring to ship into the following states should file duplicate certificates with the officers named:

Georgia—Hon. O. B. Stevens, Commissioner of Agriculture, Atlanta, Georgia.

Illinois—Prof. S. A. Forbes, State Entomologist, Urbana, Illinois.

Indiana—Prof. James Troop, State Entomologist, Lafayette, Indiana.

Iowa—Prof. H. T. Summers, State Entomologist,

Ames, Iowa.

Maryland—State Entomologist, College Park, Maryland.

Michigan—D. W. True, Care of State Board of Agriculture, Agricultural College, Michigan.

New Jersey—Dr. J. B. Smith, State Entomologist, New Brunswick, N. J.

North Carolina—Board of Agriculture, Raleigh, N. C.

Ohio—Dr. F. M. Webster, State Entomologist, Wooster, Ohio.

Virginia—Board of Crop Pest Commissioners, Blacksburg, Virginia.

ROSES AT BUFFALO.

Describing two beds of roses at the Pan-American Exposition, William Scott says in the July 15th issue of the *Weekly Florists' Review*:

One is a bed of Paul Neyron and contains 500 plants, being nearly 900 square feet in size. The other is a bed of Ulrich Brunner, and has the same number of plants as the other and the same area. At one time we could have cut 5,000 perfect Ulrich Brunner off this one bed.

Now, it occurs to me that if roses could be grown as successfully by the average cultivator, there would be far more planted and more encouragement to plant, and it might be interesting to a few to know just how they were cultivated. To begin with, the spot on which these beds exist was one mass of clay, excavated from the mirror lakes, and raised above the normal elevation more than four feet. The beds were excavated out of this clay to a depth of fifteen inches and filled up with a strong, heavy loam, which had been the surface soil of this territory and used as a pasture for many years. To it was added about one-fourth of cow manure. No other fertilizer of any kind was or has been used.

The roses for these two beds were received from Ellwanger & Barry, of Rochester, about the first day of June, a good many weeks later than any customer would receive them. They were budded low and evidently their own growing, not imported stock, and I do not believe that any such success could have been had with imported stock. This well-known firm accompanied their shipment with a note which read: "We have pruned them to save you trouble." That I appreciated, but if I had left them as they had pruned them I don't believe I would have saved 10 per cent of the plants, with all the care, so I immediately cut them down to within three inches of the ground; in fact, you could scarcely see the roses when we finished planting.

Last June was the reverse of this. Hot, dry winds, but not a drop rain. I do attach a great deal of importance to the simple, yet the

only way to plant—viz., there was ample room made for the roots, only sufficient soil put in to keep the roots in place, then the hole soaked and a few minutes afterward the excavation filled up with dry soil. That's the beginning and the foundation of success and the right way to plant. As this four feet of clay beneath the beds was in all kinds of lumps, water poured through it as through a sieve; entirely different from the natural hardpan. So every four or five days the beds were soaked and then, as soon as possible, hoed.

This treatment was continued until the roses showed decided signs of breaking, which was almost the first of July; then they were mulched with two inches of rotten manure, but the weekly watering was continued. From this on they grew rapidly, and by the end of the growing season, say the middle of October, we had canes as thick as your little finger and five feet high. As we had abundance of rains in September the watering was dispensed with.

If there was any mistake made in the cultivation of these roses up to this date it was simply this: That they had made such a prodigious growth in this soil and with the watering that the wood was rather green and soft when winter came on, but that could not be helped. If planted at the proper time and the growth produced earlier in the season we would have had a chance to ripen them off, but the growth was all made long after the usual season.

About the middle of November the canes were shortened to about

two feet from the ground and a string put around them to keep them from breaking down. After one good frost I had six inches of leaves and litter put all over the beds. Nothing more was done until the spring, when the beds were uncovered, the bushes loosened up, and I then found that the canes were all killed back to the line where the litter had protected them, so hard pruning was necessary. But even if they had not been killed back I should have cut them back almost as hard.

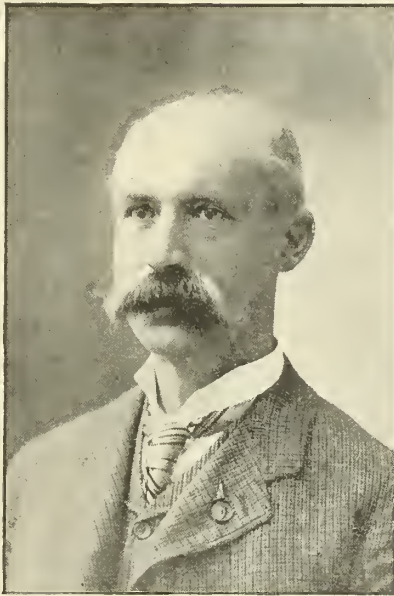
On an average not more than three to four inches of last year's growth was left on. The beds were forked over as soon as the ground was dry, and during a week's dry weather we gave them one good soaking of water. No more cultivation was done to them.

We are asked repeatedly, mostly by ladies: "How did you keep the bugs off them?" That did trouble me slightly, and I thought perhaps I would have to resort to tobacco water, but I made men get down on their knees and throw water at them hard enough to put them out if they had been on fire, and that put out all bugs and aphids.

It is only fair to say that there were two other beds of the same size as those described. One was Jaques and one was of mixed varieties. Nelson Bogue of Batavia also had eight other beds, holding each about 200 plants, equally good in quality and

giving a magnificent display, but consisting of many more varieties and consequently not quite such a show.

If these roses had been planted the middle of April, the usual time, I would consider that any good gardener could have produced these results, but being planted seven weeks later and being very much dried up when received I do consider it a triumph of science and soil.



WILLIAM SCOTT,
Superintendent of Floriculture.

Pecan Trees

For FALL 1901
and
SPRING, 1902

A fine lot of 3 and 4 feet and smaller grades.

Grown from selected Texas Thin Shell Nuts.

Can supply in quantity and solicit correspondence.

ALABAMA NURSERY CO., Huntsville, Ala.

("Chase's Alabama Grown.")

100,000 PEACH TREES

2,000 IRISH JUNIPER, very fine

2,000 PLUM TREES

1,000 NORWAY MAPLE

C. L. LONGSDORF,

Floradale,

Adams Co.

Pa.

2,000,000 Peach Trees

Largest Peach Tree Nursery in the world. Don't buy until you get a hearing from me. Write for prices and catalogue. Trees well graded, free from diseases of all kinds. Address

J. C. HALE

Prop. Tennessee Wholesale Nurseries

Winchester, Tenn.

APPLE, PEAR, PEACH AND PLUM TREES.

York Imperial, Ben Davis, Gano and Baldwin by the Thousand. Trees two and three year, No. 1. Correspondence solicited. Write for prices.

VILLAGE NURSERIES,
HARNEDSVILLE, PA.

I have to Offer for Fall, 1901, and Spring, 1902,

The following choice

PLUMS, European and Japan.

CHERRIES, Sweet and Sour.

PEARS, Standard and Dwarf.

This is the finest stock that I have ever grown. Send me your list of wants before placing your order elsewhere.

F. M. HARTMAN, Dansville, N. Y.

The Syracuse Nurseries

A General Assortment of

BUDDED APPLES, STANDARD PEARS, PLUMS

an extra choice lot of

PEACHES

also, a fine assortment of

ORNAMENTAL TREES.

We issue no trade list, but will be pleased to make low prices by letter. Send your want list. We also have a fine assortment of extra size Apples, Pears, Plums and Cherries which we offer at low prices in order to clear the ground.

SMITHS & POWELL CO., Syracuse, N. Y.

VINCENNES NURSERIES VINCENNES,
INDIANA.

W. C. REED, Proprietor.

OFFER FOR FALL, 1901, AND SPRING, 1902,

Apple, Peach and Carolina Poplar

by the carload. Also good stock of

CHERRY, 1 and 2 year, PEAR and JAPAN PLUMS.

General assortment of small fruits.

Correspondence solicited.

Ornamental Trees

Extra Size, 10 to 20 Feet, 4 to 6 Inches.

ELM, MAPLE, LINDEN, HORSE
CHESTNUT, CUT-LEAF BIRCH,
WHITE ASH, CATALPA, OAK.

A Fine Lot of
Ornamental
Shrubs

Standard and Dwarf Pears
and Plums, also

Currants and Gooseberries

If you want large trees and fine stock, here they are.

NELSON BOGUE,

Batavia, N. Y.

FOR FALL OF 1901

APPLE
PEAR FOREST TREE
R. MULBERRY
OSAGE
SEEDLINGS

TITUS NURSERY,

Nemaha, Neb.

100,000 Barberry Wanted *In Exchange for
EVERGREENS.*

Must be Bottom Prices. State size and number you can offer.

Address, EVERGREEN NURSERY COMPANY,

STURGEON BAY, WIS.

A large stock of Clematis, leading varieties.
Not Quite a Million but an Immense Quantity.

Write for Prices.

P. W. BUTLER, East Penfield, N. Y.

Ornamental
LARGE
SMALL TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue
and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

California Privet
Asparagus Roots
Apple Trees, 2 and 3 yr.
Japan Plum, 1 and 2 yr.
Peach, fine, 1 yr.
Golden Glow also
Marianna Plum Stock

West Jersey Nursery Co

STANTON B. COLE

Bridgeton, - N. J.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"No longer can the nurseryman do an indiscriminate business."—PROF. BAILEY.

VOL. IX.

ROCHESTER, N. Y., SEPTEMBER, 1901.

No. 9.

NURSERY LEGISLATION.

Discussed at Convention of Southern Association by Professor Sherman of North Carolina—Believes That Should San Jose Scale Become Extinct There Would Still Be Need for Nursery Inspection Laws—A Thoughtful Address.

At the annual convention of the Southern Nurserymen's Association, at Asheville, N. C., July 16th, the following paper on "Some Thoughts on Nursery Legislation" was read by Professor Franklin Sherman, Jr., state entomologist for North Carolina:

Within the last few years many states have enacted laws that affect the fruit trees and nursery stock. In some cases the laws of the different states are so different, that considerable loss has sometimes resulted to the nurseryman. An imperfect understanding of the laws of any one state may result in the delay of a shipment of stock, thereby causing a direct loss to the grower, and indirectly to the nurseryman.

The main factor in bringing about all this legislation is the San Jose scale. But, while it has been mainly instrumental in bringing these laws into effect, it is my belief that, should the scale now perish from the face of the earth, nursery inspection laws would still be in order, and, for one, I should favor them. The systematic inspection of nurseries has revealed to us a number of insects and diseases that were not so well understood by the fruit grower or nurseryman a few years ago.

In times past a fruit grower might simply say that his orchard "didn't do well" or "many of the trees died," but now the careful grower will tell you that his peach trees are "hurt by borers" or his apple trees are attacked by "leaf rust." Growers are becoming more careful and are investigating more and more to determine with absolute accuracy the cause of every failure in the orchard. This is a good sign, and is to be commended. This close application to details has resulted in bringing us to more fully appreciate the losses that we suffer every year.

We are now ready to believe the estimate made some years ago, that insects commit depredations on the agricultural interest in this country to the extent of over \$300,000,000 annually. Of this the San Jose scale is responsible only for a small per cent. Nursery inspection, therefore, though called into effect mainly to check this scale has, like many other of our institutions, expanded, and we now recognize it to be benefit aside from all consideration of this insect.

The speaker is not one of those who maintain that this scale is a "blessing in disguise." We have seen too much of the havoc wrought by it in this and other states. It is a pest to be avoided with the greatest care, and, when discovered, should be fought with energy and perseverance. We do believe, however, that the agitation of the scale problem has awakened fruit growers, as they were never before, to the ravages that their orchards suffer through insects and disease. This awakening is not to be called a "scare," but rather a "reform"—a reform from the old neglectful methods once practiced to a method which brings into play all of one's talent and skill, accompanied by the four primary operations in successful orcharding, namely, tillage, fertilization, pruning and spraying.

We consider the pest to be indeed a curse in every orchard where it becomes established, but, leaving the pest itself out of the reckoning we think that the agitation has been a blessing, and it had been a benefit to both the grower and the nurseryman. This pest is not yet (so far as we know) so thoroughly disseminated over the country as to be

a very important factor in the total yearly production of fruit. In this state we have been agitating the question with considerable energy during the past year, yet at this writing we only know of the existence of this pest in twelve postoffice localities in this state. It is true that these localities are scattered from Wilmington in the east to beyond Asheville in the west, but when we consider that there are more than 2,800 postoffice localities in the state, we see that the infestation, so far as determined, is small, including less than one-half of one per cent. of the localities of the state. Let it not be forgotten, however, that this is a small matter only by comparison, for with each grower whose orchard is affected the question is as serious as if the whole state were in the same condition.

And it is not for us to wait for the pest to become more widely distributed before taking the matter in hand. The fact that its rate of spread is slow is one of the very reasons why we should be energetic in our measures against it, for our chances of successfully fighting it will be correspondingly greater—and the fact that its distribution to new, distant localities, it is mainly dependent on the transportation of infested plants, at once shows that with a well-administered system of nursery inspection and control, we may do a great deal to keep the insect from new localities. We cannot expect to exterminate this pest in this state, and not from localities, except in especially favorable circumstances, but by carrying out this inspection work conscientiously, we may keep it from spreading rapidly, as it otherwise would. The small-pox quarantine does not eliminate the disease, but prevents a worse condition, and we do not dispense with the services of physicians because they do not cure every patient.

The reform which has been fostered by the scale agitation has resulted in many old orchards, that were unprofitable, being reclaimed and put into good cultivation, with the result that they now yield a good profit, and this is an encouragement to the orchard industry generally, and hence an advantage to the nurserymen. But if the fruit grower should be told that the nurseries were no longer to be inspected and that he must run his own risk, unaided in the matter of purchasing infested trees, it is safe to assume that great discouragement to the industry would be the immediate result. The inspection is, therefore, of great advantage to both parties. Nursery inspection is a new feature in the nurseryman's business, just as spraying is a new feature in the business of the apple grower—a special feature created to meet special conditions.

Probably we are unanimous in wishing that all the state laws were uniform. Many of us, myself among the number, are in favor of a national inspection law that shall be enforced by the United States Department of Agriculture at Washington. Such an arrangement might take employment from some inspectors and give it to others, but on the whole we believe that it would be hailed with approbation by the entomologists and nurserymen of the country.

At this point it may not be amiss to remark that the matter of nursery inspection has added very greatly to the labors of many of our entomologists and time that could be profitably employed in making the necessary inspections. The inspection season is the very hottest part of the summer, and it is not easy work, when done with the thoroughness which it deserves. We believe that nursery inspection is as hard on the inspector as it usually is on the nurseryman. The average inspector wishes much more to co-operate and be co-operated with than to antagonize.

Then there is the question of the fumigation of nursery stock. In this state the commission controlling crop pests has adopted a regulation compelling the fumigation of stock by all nurserymen in the state. In New York the fruit growers and nurserymen are having a veritable war over this question, but in this state we anticipate no such difficulty. It will be some time before every nursery in our state will be fumigated though the more progressive concerns will be practicing it this

fall, but the matter will be urged upon them, and they will give personal instructions in the matter until we get the whole system in working order.

We are not rushing blindly ahead and forcing our nurserymen against their will, without giving them full opportunity to see the "whys" and "wherefores." Fumigation is not an experiment, and, if by spending 25 cents and an hour of time, the nurseryman may prevent a fruit grower from losing 5,000 trees, is it not a fair expense? We have shown that the scale is not the only pest to be guarded against in this way, for with the green aphid, woolly aphid, oyster shell bark louse, scurfy scale, round-headed borer, flat-headed borer, bag-worm, peach borer, and others that are a hundred times more common than the San Jose scale, we have abundant justification for the position that we take.

In this connection I will read an item of my own which appeared in a recent issue of the American Agriculturist:

"I think it is only a question of a very short time before it will be one of the regular operations of the nurseryman, whether it is compelled by legislation or not. In the meantime, where great interests are at stake, I do not think laws compelling fumigation are out of place; but rather a necessity. Some people are inclined to look upon fumigation requirements only with reference to the San Jose scale, but it is equally fatal to other insects and cannot fail to be of very great benefit to the fruit grower. The cost of fumigation to the nurseryman, as compared with the cost of spraying, etc., to the grower, is small. Of course, a system of fumigation will not do away with the necessity of spraying but will greatly decrease the loss that growers now sustain from the attacks of various insects."

After all, the nursery legislation will benefit the nurseryman, for whatever encourages the grower to increase his orchards and to give them better care, will benefit the man who sells the trees. We have heard it said that the nurserymen are satisfied to have the growers careless, for by the dying of neglected orchards they are able to make new sales.

This may sound plausible, but a healthy and profitable tree will do much more to encourage orcharding than a dead one. In spite of all that science and teaching can do, there will be plenty of trees to die, to make room for a normal number of sales.

Let us hope that the Southern Nurserymen's Association will stand ready to encourage all that goes to protect the fruit grower. No one objects to high taxes if he see the benefits, and the intelligent, progressive fruit growers will not be the ones to object to paying the cost of the fumigation or inspection, in the slightly increased cost of trees. We do not believe that the cost of inspection fees, and fumigation (including time) is more than ten cents per thousand for any nurseryman with an acre or more of stock, unless he ships in very small lots and has to fumigate them all separately, so it can be easily seen that the matter of fumigating stock is not one of any great expense.

In this state, the commission controlling crop pests which has this work in charge (and is supported in the work by the Department of Agriculture), is endeavoring to work in complete accord with both the growers and the nurserymen. Both are now working with us very satisfactorily.

When harmony shall supplant discord, and co operation take the place of opposition, our nurserymen and fruit growers all over the country will find that our interests are mutual, and the whole question of nursery control will find a happy solution.

APPLE EXPORTS.

The apple exports of the United States and Canada for the season 1900-'01 make a total of 1,346,030 barrels, included among which are 203,333 boxes of California apples. Total exports for the previous season amounted to 1,293,121 barrels, including 149,515 California boxes. For last season the chief port of export was Boston with 409,979 barrels, Montreal coming next with 249,219 barrels, followed by New York with 240,635 barrels. The chief port of import was Liverpool with 814,100 barrels, London following with 251,322 barrels, after which came Glasgow with 225,061 barrels.

HORTICULTURE IN WASHINGTON.

Prof. S. W. Fletcher horticulturist for the state of Washington, who had been visiting eastern horticultural centers told the editor of American Gardening that the horticultural possibilities of Washington are great. Cherries, by actual measurement, are $1\frac{1}{2}$ inches in diameter, and as to strawberries—they are so large that no quotation would be made for fear of not being believed. Blackberries make canes fifteen feet in length and are laid over on to a trellis just as we do grapes hereabouts, and the fruiting season endures from June till October. The state produces apples and pears of excellent quality in which an export trade to China and Japan is already well established. Soft fruit is shipped in refrigerator cars as far as St. Paul, Minn.

There appears to be no difficulty of production, but the question of reaching proper markets at a proportionate cost is the serious problem that confronts the Washington fruit grower. The climate of the state is very salubrious, and without excessive heat in summer. There is a wonderful depth of soil; it is fifty feet and more at Pullman, where the experiment station is.

NURSERY STOCK IMPORTS, 1896-1900.

Bulletin 24 of the section of foreign markets of the United States Department of Agriculture, prepared by Frank H. Hitchcock, chief of that section, shows the sources of the agricultural imports of the United States for the five years 1896 to 1900.

Under the head of Nursery Stock the following values are shown:

Countries from which Imported.	YEARS ENDED JUNE 30.					Annual Average, 1896-1900.	
	1896.	1897.	1898.	1899.	1900.		
	\$	\$	\$	\$	\$	\$	Per ct.
Netherlands	507,362	350,882	299,149	286,797	348,472	318,533	36.01
France	178,565	202,187	100,375	122,739	160,423	152,858	17.28
Belgium	143,031	124,646	116,878	130,864	172,639	137,612	15.56
Germany	77,083	76,680	59,368	63,229	83,546	72,101	8.15
Bermuda	104,852	53,436	76,663	49,523	52,424	59,689	7.65
United Kingdom	67,279	53,436	76,663	49,523	52,424	59,689	6.77
Japan	22,904	25,972	24,516	41,748	60,513	35,131	3.97
Canada	24,486	22,615	7,402	1,678	2,806	11,798	1.33
Italy	3,477	4,980	8,845	11,421	3,114	5,568	.63
Chinese Empire	5,228	8,692	3,849	4,440	5,441	5,532	.63
British West Indies	4,632	2,874	2,849	2,955	2,212	3,108	.35
Hawaii	1,208	2,166	1,393	3,286	4,151	2,441	.28
Hongkong	955	941	2,849	3,212	2,730	2,137	.24
Brazil	507	1,779	2,323	2,849	933	1,678	.19
Colombia	1,586	1,588	2,609	1,127	780	1,738	.17
Austria Hungary	2,525	2,983	649	734	652	1,509	.17
Mexico	3,276	704	1,241	1,371	647	1,448	.16
British Africa	3,580	.....	.....	.....	.....	716	.08
Turkey, Asiatic	220	990	1,410	474	376	694	.08
Switzerland	414	378	1,903	394	59	630	.07
Venezuela	360	61	178	369	1,118	417	.05
Azores, and Madeira Islands	325	.....	.....	27	1,300	330	.04
Denmark	17	151	251	.....	821	248	.03
Cuba	263	286	17	274	227	213	.02
British Australasia	278	363	15	155	.....	162	.02
British East Indies .....	.....	93	157	284	94	133	.02
Portugal	5	.....	.....	.....	560	113	.01
Costa Rica	30	.....	5	370	28	87	.01
Porto Rico .....	.....	.....	100	.....	258	72	.01
Honduras	4	2	61	.....	114	36	.....
Guatemala .....	.....	.....	78	.....	71	30	.....
Auckland, Fiji, etc. ....	.....	.....	.....	136	.....	27	.....
Nicaragua	20	.....	.....	.....	112	26	.....
Russia, European	101	.....	.....	.....	.....	20	.....
British Honduras .....	.....	.....	.....	36	30	13	.....
Sweden and Norway	5	.....	7	46	3	12	.....
Turkey, European	40	.....	.....	.....	.....	8	0.02
British Guiana	10	.....	.....	.....	25	7	.....
Spain .....	.....	.....	.....	.....	32	6	.....
Argentina .....	.....	.....	25	.....	.....	5	.....
Dutch East Indies .....	.....	.....	.....	.....	22	4	.....
Philippine Islands .....	.....	.....	.....	20	.....	4	.....
Danish West Indies	10	.....	.....	.....	.....	2	.....
Dutch Guiana .....	.....	.....	5	.....	.....	1	.....
Total	955,307	963,977	762,158	768,982	972,385	884,662	100.00

NURSERYMEN GROW SUGAR BEETS.

The largest nurserymen in Onondaga county, N. Y., and at one time the largest in the state, are Smiths & Powell. They own a farm which is nearly three miles long, extending along the side of Onondaga lake. All kinds of trees are grown. There was a great demand for pear trees this season. The spring trade was excellent and there are a large number of inquiries for stock for fall. Smiths & Powell raise every year about 300 acres of beets for sugar. They are shipped to Binghamton, as are the crops of a large number of other growers in the vicinity. E. A. Powell says that he finds the growing of sugar beets profitable and expects to see the time when they are more extensively grown than at present. Mr. Powell finds that the question of labor is an important one in this industry. It takes a great deal of labor and it must be had at the time it is needed. The difficulty lies in the fact that more is needed at some times than at others and farmers cannot find it profitable if they are not situated where they can get labor at any time and drop it when they are through with it.—American Florist.

UNIVERSITY EXTENSION.

"The time has come," says Professor L. H. Bailey, "for a definite, intensive movement in university extension. Every person in this country is a sovereign. Every boy expects to be president. Every man has a voice in affairs. In nearly all our states most of the people are farmers. In Delaware, every one in four lives on a farm; also in Illinois. In New York, one in every seven is on the farm. Every day and year farming is becoming more difficult. Competition increases and will ever increase. Agriculture to-day means many different trades—dairy business, flower growing, and fruit growing.

"At Cornell University a definite extension movement for the betterment of agriculture has now taken form. It has grown to larger proportions than any other movement of its kind. About one hundred thousand people are the number whom we are serving in many various ways—with whom in one way or another we have relations. The enterprise of university extension has been developed because of four underlying principles: Fundamentally, the people were ready—they wanted to learn; certain teachers were ready—they wanted to teach; the persons into whose hands this work fell, were given complete autonomy; they were not restricted; the legislature gave money.

"A few days ago I spoke to about 1,100 people, in a state teachers' association, on the subject of agricultural education. It is a most remarkable thing that a man should be asked to talk on agriculture before a state teachers' convention. I do not know of any movement that so completely shows the tide of educational events as the way in which school teachers are taking up this subject. The probability is that a law will be passed in Illinois this winter, providing for the teaching of agriculture in the rural schools. In New York we have a law which specifies that certain funds shall be expended for the extension of agricultural knowledge.

"One way of reaching the people, in the Cornell movement, is by making experiments that are really schools. There is a farmers' reading course.

"The nature study idea is another part of the Cornell movement. We try to get hold of the children of the state. We are often asked to advise if children should go from the city to the farm. We reply that they should not go to the farm with the idea of getting rich. In the city one becomes part of machine—he may lose his individual identity. If you want an identity, if you want to have your own mind and opinions, go to the farm; but first learn how to live. The farmer does not always know how to live; he needs to have better farm surroundings and more sympathy with the things among which he lives. It seemed as if, first of all, we must get the children. Accordingly, as the child grows up we try to put before him something that will educate him toward the farm. So far, we have organized 50,000 children into junior naturalist clubs. We reorganize every year.

"Another movement now on hand is to organize the farmers' wives in the state. We have now 2,000 organized, and I expect some day to count them by the ten thousand.

"We do not desire to force agriculture upon the schools, but to introduce it gradually as opportunity offers and as the time is ripe. Everything that elevates a man and gives him a closer hold on life, benefits him immensely, even though it does not teach him how to kill a potato bug or spray a tree. Every year a lot of young fellows come up to our institution from the farms. They are not sick of life. They do not think it is a failure. They are full of blood and vim, and have a hold on life that is contagious. Every year, as they come in, I feel myself getting younger."

SEVENTEEN-YEAR CICADA.

Prof. W. G. Johnson says in *American Agriculturist*:

Those who expect to plant orchards or trees of any kind this fall or next spring should be on their guard, especially in territories where the 17-year cicada or locust is due. A destructive brood of this insect will occur in '02. They will be particularly noticeable in the eastern tier of counties in Illinois, in Sauk County, Wis., all of Indiana, the western half of Ohio, and in Southern Michigan; extending to the central portions of Kentucky, into Eastern Tennessee, Western North Carolina, and Northern Georgia; western portions of Virginia, eastern counties of West Virginia, practically all of Maryland, Delaware and New Jersey, Eastern and Southern Pennsylvania; and a few scattered localities in Western New York, along the lake shore and in Rutland county, Vt.

This is the largest of the 17-year broods of this insect. It last appeared in 1885 and considerable damage was done to trees and shrubs in the territory mentioned. This insect will appear in May in most, destructive numbers. During that time they will deposit their egg in trees and shrubs, seriously injuring them. The insect cuts a deep slit in the twig in which it deposits its eggs. These eggs hatch in a short time and then emerging from them drop to the ground and remain below the surface for a period of 17 years.

It is the cut in the twigs during the time the females are depositing their eggs that causes so much damage to trees; particularly young trees. In view of the fact that this pest occurs throughout such an important fruit belt, persons who expect to plant young orchards particularly on land recently cultivated, should take warning. The chances are that trees planted this fall or next spring on recently cleared lands will be seriously injured, if not killed by this insect. The adults rarely if ever takes food of any kind and lives a short time only after the eggs are deposited. Due to the fact that the cicada is not especially choice of trees in which to deposit its eggs, fruit growers should be exceedingly cautious and use every means to keep these pests from young trees. Trees of special value liable to be injured in districts where the pests will occur in greatest numbers should be protected for a few weeks with various kinds of coverings.

WHAT NURSERYMEN EARN.

Question of Price Levels and their Relation, Wholesale and Retail—Bills of Lading Rule the World—No Other Question of State, Church or Society so Urgently Demands Proper Solution as that of the Fair Adjustment of Prices—A Timely Discussion.

The following paper upon a timely topic was read by President E. W. Kirkpatrick, of the Texas Nurserymen's Association at the annual convention of that association at College Station, Texas, on July 23-26, on the subject: "Price Levels and their Relation Wholesale and Retail."

Bills of Lading Rule the World—This statement contains much truth and this ruling is just or unjust in proportion to the justice or injustice of prices.

The so-called natural law of supply and demand has been, to a great extent, superseded by artificial laws of supply and demand.

Special laws fix prices for certain favored classes while the masses have been preyed upon and robbed of millions of wealth by unjust adjustment of prices. The proper adjustment of prices would settle all disputes between employer and employed.

No other question of state, church, or society so urgently demands proper solution as that of the fair adjustment of prices. This work has ever been referred to the instinct of greed and cunning, rather than to rules of law and courts of equity.

So-called statesmen advise the workers to reduce the cost of production to a minimum. The effect of this rule is the reduction of the price of labor which always pinches the man who does the work, while the statesman votes laws for the increase of his own salary.

Prices ought to be, can be, and will be fixed on a just and reasonable basis and regulated in harmony with the laws of progress.

The price of all produce including that of the orchard, garden and nursery should be sufficiently high to enable the owner to pay good prices for labor and all other articles needed, also to enable him to lay by a good store of wealth for use in old age.

When a producer plants and cultivates and plants and prunes and waits for two years and then carefully digs and packs and labels and delivers a fine peach or apple tree, 5 to 6 feet high, he has earned 25 cents of legal tender currency and the producer who sells cheaper will either cheat himself or his creditors. Other trees larger or more difficult to handle and produce should be correspondingly higher, and trees smaller and which are more cheaply produced and handled correspondingly lower. Trees grown and handled for large wholesale orders to planters who are sure pay can be handled at a lower rate than in retail orders. Responsible dealers who assume the risk, the labor and expense of retailing stock are entitled to, and receive lower prices than planters, and all persons who have a proper appreciation of commerce understand the reasons upon which the rights of the dealer are based.

This society is urged to take up the work of investigating prices by appointing a committee with instructions to investigate the feasibility of establishing price levels.

ORANGE TREES FOR NEW JERSEY.

Riverside is not only supplying the residents of New Jersey with oranges, but also with orange trees for planting, says an exchange. A shipment of 170 trees was sent from there last evening, the consignee being J. B. Duke, the wealthy tobacco magnate, who will plant the trees in hot houses at his country home at Somerville, N. J. The shipment included specimens of the various varieties of oranges, and trees run all the way in size from nursery to trees with fruit upon them.

HOLMAN & BENTE, LEAVENWORTH, Kan., July 2, 1901.—"Enclosed find renewal. We would not know how to get along without the NATIONAL NURSERYMAN."

A FLORIST'S NURSERY.

In another column in the advice given a correspondent who asked for an enumeration of the best stock with which to start a nursery, says the Florist's Exchange, it is stated to first of all lay in a stock of common shade trees, fruit trees, flowering shrubs, etc. This correspondent lives in the country, and it is to be supposed his customers at the start will not be those who will be looking for stock mainly for the ornamentation of their grounds.

Florists, as a rule, live near cities, and those who wish to purchase from them, do so chiefly for the improvement of their gardens, and the stock they need is that of a more ornamental character. Trees of small growth, or large growing shrubs as well as those of smaller stature and pretty habit of growth, will be in demand. Small evergreens are always sought for, both for permanent planting and temporary use in pots, for placing about the grounds, or in positions on porches and other places near the dwelling. There are many of these of different styles of growth, from the pyramid-shaped Irish yew, to the globe-shaped *Arbor vitæ*. Many of these evergreens could be utilized where rubber plants are now used. Beautiful and useful as the latter is, it would be more admired if contrasted occasionally with some other handsome evergreen. If both the nurseryman and the florist would embellish the grounds about their own establishments, by using such plants, trees and shrubs as they wish to sell, it would be an object lesson to visitors, which in many cases would result in a good sale. What many a customer wants, is to see a tree or shrub filling a position such as one he has in mind for his own place. The florist should visit some nearby nursery soon, before fall sales start, make up his mind as to a few desirable sorts to have in stock, then prepare a piece of ground where he can place such subjects, so as to make a good exhibit. The planting of the evergreen portion could proceed at almost any time now; that of deciduous stock, a month later.

AGRICULTURAL EXPERIMENT STATIONS.

Following is a list of the American experiment stations, the location of which is often a subject of inquiry:

Alabama, Auburn; Uniontown. Arizona, Tucson. Arkansas, Fayetteville. California, Berkeley. Colorado, Fort Collins. Connecticut, New Haven; Storrs. Delaware, Newark. Florida, Lake City. Georgia, Experiment. Idaho, Moscow. Illinois, Urbana. Indiana, Lafayette. Iowa, Ames. Kansas, Manhattan. Kentucky, Lexington. Louisiana, Audubon Park; New Orleans; Baton Rouge; Calhoun. Maine, Orono. Maryland, College Park. Massachusetts, Amherst. Michigan, Agricultural College. Minnesota, St. Anthony Park. Mississippi, Agricultural College. Missouri, Columbia. Montana, Bozeman. Nebraska, Lincoln. Nevada, Reno. New Hampshire, Durham. New Jersey, New Brunswick. New Mexico, Mesilla Park. New York, Geneva; Ithaca. North Carolina, Raleigh. North Dakota, Fargo. Ohio, Wooster. Oklahoma, Stillwater. Oregon, Corvallis. Pennsylvania, State College. Rhode Island, Kingston. South Carolina, Clemson College. South Dakota, Brookings. Tennessee, Knoxville. Texas, College Station. Utah, Logan. Vermont, Burlington. Virginia, Blacksburg. Washington, Pullman. West Virginia, Morgantown. Wisconsin, Madison. Wyoming, Laramie.

SOUTHERN ASSOCIATION.

At the recent convention of the Southern Nurserymen's Association the following discussion took place:

Question Box—"What about spraying and fumigation?"

Mr. Van Lindley—"We have learned by experience that a law which we thought would result in injuring us has proven of inestimable good. I refer to fumigation. We now fumigate everything we plant, and then fumigate again before we ship. We thought it would prove expensive but it is not. We have lost in the last twenty-five years not less than an average of \$1,000 per year from woolly aphis which I believe we could have saved had we fumigated our grafts before planting. We fumigated this year and up to this time have no signs of aphis. We have also sprayed both in nursery and orchard with good results."

Mr. Hale—"The aphis is the fellow we are after. He gives us more trouble than any one thing. What can be more discouraging than to see a fine orchard tree sicken and die from the effects of these pests? I have fought him in every way imaginable, but can't do much with him."

Prof. Franklin—"There are two forms in which woolly aphis exists; the form under the ground and the one above ground. Spraying with kerosene emulsion is quite effective to the form that attacks the branches. Fumigation will destroy the form that attacks the roots and if nursery trees are properly fumigated before they are planted to orchard there will not be much trouble afterward."

Mr. Hood—"The aphis has been a thorn in the flesh for for years. Some years it is much worse than others. We have lost whole blocks of fine apple on account of this pest."

Mr. Wilson—"I hope the experiments will be of great benefit to us by the time we meet again. The aphis certainly brings with it a tale of woe. Possibly we are getting at him in a manner that will soon greatly narrow his range of influence if not stamp him out altogether."

"What is the best variety of mulberry for the South?" Answer by J. Van Lindley—"I have found New American and Hicks to be the best with us."

"Is the Admiral Dewey peach a success?" Answer—"Has not been fruited long enough to determine."

"What cherry stock is best for budding in the South?" Answer by W. T. Hood and N. W. Hale, that Mahaleb is the best. Mazzard had been used as a grafting stock with varying success, but was a failure for a budding stock.

"Can apple and pear blight be prevented?"

Mr. Brown—"Apple trees pruned by me last fall are now free from blight. Some trees in the same orchard that were not pruned are now blighting badly. I recommend fall pruning as a preventive to blight in apple trees."

Prof. Sherman—"Apple blight is not caused by an insect as many suppose, but is a bacterial disease. It cannot be reached by spraying. Pruning is the best preventive."

Mr. Hale—"I have seldom known the apple blight to attack the same trees two years in succession. It seems to appear in one locality one year and another the next. With pears it is different."

Mr. Hood—"Apple blight sometimes kills trees in nursery rows. I had a block of two-year-olds killed this way."

"Mr. Van Lindley—"There is nothing that will keep down the pear blight as much as pruning. Pear trees can often be

saved by severe pruning. Branches pruned out should be burned."

Mr. Hale—"Is there any safe way to check the growth of nursery stock for early digging in the fall?"

Mr. Smith—"We have tried various plans, but have failed to accomplish the desired result."

DELAWARE PEACH ORCHARDS.

G. H. Powell gives in *American Agriculturist* the following as reasons for the decline of Delaware peach orchards: 1. Uncertainty of the crop in recent years. 2. Increasing competition due to the development of immense peach tracts throughout the country. 3. Lack of intensive culture, that is now made necessary by competition. By culture I mean tillage, pruning, thinning and other orchard incidentals. 4. The prevalent tenant system of land management. In some sections nearly all of the orchards are tenanted. 5. A fundamentally wrong package—the large five-eighths bushel basket instead of smaller baskets and carriers. This year several of the best growers will begin a co-operative study of various systems of pruning, thinning, more intensive tillage and better marketing.

THE PISTACHE NUT.

The Visalia, Cal., Delta, states that I. H. Thomas, of California, has received from the United States Department of Agriculture some roots of *Pistacia vera*, which he has set out and will cultivate. The pistache is a valuable nut tree, and well suited for culture in regions having a hot, dry climate. The nut sells in this country at from 40 cents to \$1.26 per pound, wholesale. They are extensively used in America for flavoring confectionery and ice creams, and it is confidently expected that they will be widely used as a table nut, to be served like the almond, as soon as they become better known.

In the eastern Mediterranean countries, where the pistache is the best known and choicest nut, it is much more used for eating from the hand than for flavoring. They are among the most delicious nuts known, rather smaller than the almond, but more delicate in flavor and a little oilier, somewhat resembling in texture and taste the pinon of the Rocky mountains.

Unlike the pinon and the almond, the pistache nut has a shell easily opened with the fingers, since it consists of two thin valves, which split open and become nearly separated as the fruit dries.

NURSERY INSPECTION IN NEW YORK.

The New York Department of Agriculture reports the issuing of 66 certificates to nurserymen whose nurseries were inspected by agents of the department since July 1, says the *Country Gentlemen*. There seems no indication of a large infestation by the San Jose scale. It has been found in several places, but not to an alarming extent.

SILAS WILSON, ATLANTIC, Ia., July 11, 1901.—"I think the NATIONAL NURSERYMAN one of the best advertising mediums in the country. Please find enclosed draft for \$1 to apply on my subscription. I wish you continued prosperity."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,
305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance, - - - - -	\$1.00
Six Months, - - - - -	.75
Foreign Subscriptions, in advance, - - - - -	1.50
Six Months, " " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Robert C. Berckmans, Augusta, Ga.; vice-president, R. J. Coe, Fort Atkinson, Wis.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. H. Dayton, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., SEPTEMBER, 1901.

THE APPLE CROP.

Taking 100 as representing an ideal crop, 85 represents an average, one year with another says the American Agriculturist discussing the apple crop. On this basis the crop of New England now seems to indicate about 25, with the quality only fair. Russets are best, Baldwins poorest. Fall apples are more numerous than any other varieties. In New York the crop averages from 25 to 40 per cent. Kings and Spys are fairly good, with Russets and Greenings next, but Baldwins are poor. Prospects are a little better in New Jersey and Pennsylvania, the yield promising to be about from 45 to 50 per cent. with the quality only fair. In Maryland and the south Atlantic states the crop will range from 50 to 60 per cent. of an average, with the quality fairly good. In Michigan counties noted for their orchards, such as Kent, Van Buren, Washtenaw, Eaton and Oakland, the yield will not be more than 35 to 40 per cent. Indiana will have about one-

half a crop, and Illinois about 40 per cent. of an average crop of only fair quality, apples small.

The Canadian crop is short, but of good quality.

ST. LOUIS WORLD'S FAIR.

The foundation plan of the St. Louis World's Fair in 1903 will be that of an exposition both national and international in its character, so that not only the people of the Louisiana Purchase Territory, but of our Union, and all the nations as well, can participate. It will depart from the plan of all past expositions and make life and movement its distinguishing and marked characteristics. To this end it will aim definitely at an exhibition of man as well as the works of man; at the presentation of manufacturing industries in actual conduct as well as of the machines out of action; at the exhibition of processes as well as of completed products.

Section 15 of the by-laws is as follows: "The committee on agriculture shall consist of seven (7) members, and shall be charged with the immediate supervision of all matters pertaining to agriculture in connection with the exposition, including food and food products, farming machinery and appliances, forestry and forest products, viticulture, horticulture and floriculture, live stock, domestic and wild animals."

The committee on agriculture is composed of Paul Brown, chairman; Festus J. Wade, vice-chairman; Nicholas M. Bell, Julius S. Walsh, William J. Lemp, David Ranker jr., John Scullin. Mark Bennitt will have charge of the Department of Publicity.

POMOLOGISTS TO MEET.

The meeting of the American Pomological Society at Buffalo on September 12th and 13 should be one of unusual interest. The society meets biennially; its last session, in 1899, was held in Philadelphia. Its deliberations are of very great interest to nurserymen. Indeed its membership and its officers are largely nurserymen. C. L. Watrous, the well-known chairman of the committee on legislation of the American Association of Nurserymen, is the president of the American Pomological Society, and the first vice-president of the society is Thomas Meehan, Germantown, Philadelphia, who is in the first rank of nurserymen. The able secretary is the assistant pomologist of the U. S. Department of Agriculture, an acknowledged authority on pomology. The incorporators of the society in 1887 were: Patrick Barry, J. J. Thomas, Prosper J. Berckmans and Robert Manning, nurserymen, and Charles W. Garfield, and Benjamin G. Smith. The chairman of the finance committee is J. G. Harrison. The chairman of the committee on nomenclature is U. S. Pomologist G. B. Brackett. The published proceedings of the twenty-sixth session in 1899, including the revised catalogue of fruits, recommended by the society for cultivation in the various sections of the U. S. and the British provinces is of great value.

At the Buffalo meeting next month delegates from twenty state and provincial societies will be present. The exposition management has provided space for a large fruit exhibit. It is expected that there will be a lively contest for the Wilder medals. Fruit entered for awards by the society can also be entered for the awards of the exposition.

At the head of the list of papers to be presented is one by Prof. L. H. Bailey, entitled "A Companion of Eastern and Pacific Coast Fruit Culture." Prof. Bailey has been for two months on the Pacific coast. There are other topics of interest to nurserymen. Biennial membership in the society may be had on payment of \$2 to the secretary Wm. A. Taylor, Assistant Pomologist, Washington, D. C.

A PITLESS PRUNE.

And now it is the pitless prune! We have had the coreless pear, the seedless blackberry, the seedless grape, and a long line of novelties which have borne out, in some measure at least, the claims made for them. Luther Burbank, the wizard of Santa Rosa, California, has been experimenting for several years in an effort to produce what would be to fruit-drying what the development of the Thompson seedless grape has been to raisin-making.

To Prof. L. H. Bailey of Cornell University, and Prof. Osterhont of the University of California, says the California Cultivator, Mr. Burbank recently showed many samples of his new prune, which was obtained by crossing the ordinary French prune with a plum. While there is not a pit in the fruit, there is a small seed, but it is not such that it need be extracted before drying. The seed is edible and is so small that the prune may be practically considered seedless.

"It is a great thing for fruit men," said Prof. Bailey; "a wonderful discovery. This latest discovery ought to create a sensation among eastern horticulturists."

Let the good work go on. Perhaps we shall soon have a rindless melon, shell-less nuts, pitless cherries, and—who shall say—a lifeless San Jose scale.

HEARTILY ENDORSED.

We heartily endorse the following editorial comment by the Rural New Yorker:

The unimportant question as to whether one naval commander or another is entitled to more credit for the defeat of the Spanish war squadron off Santiago during the late war is to be fought out in an expensive court of inquiry, to the detriment of public business. Judged by the commotion this dispute has occasioned one might think the question involved was vital to the public welfare, but when it is considered that the officers concerned were trained and educated at the expense of the government, have received a liberal compensation through a lifetime of preparation for just such a contingency, and since were both promoted to a rank that ensures ample pension on retirement, it seems nothing more can be due them. The spectacle of individuals doing fairly well their ordinary duty is not so rare that hysterics need follow. Myriads of workers in every humble walk in life do as well every day without comment or expectation of unusual reward. It would be more creditable and in keeping with modern ideas of civilization to find the public interested in a discussion whether the originator of the Concord grape, or of the Wealthy apple was deserving of the greater honor. These men fought the grimmest of all enemies, poverty and obscurity, with no hope of substantial reward, and left results of permanent national value behind them, but even the names of these unselfish benefactors are known to few who profit by them.

SUGGESTION TO NURSERYMEN.

Prof. Samuel B. Green, St. Anthony Park, Minn., who recently visited European countries, tells of a custom that prevails among nurserymen and seedsmen in some of those countries, by which the public is a gainer, says Colman's Rural World. "Effort is made," he says, "to get land that lies along a railway track, and then making it beautiful with a succession of flowering and foliage plants. Near by, of course, they will have a large but neat sign indicating whose establishment it is. This form of advertising seemed to be a special feature among English nurserymen, and a very pleasant feature it is. There is a dignity and high standard and truthfulness about such advertising which no printing will take the place of. When such places are by the side of some suburban line that is patronized by hundreds of thousands of people daily, many of whom come to note the frequent changes in landscape effects produced during the season, I am inclined to think it a very desirable form of advertising."

T. S. HUBBARD BACK FROM EUROPE.

T. S. Hubbard, of Genesee, returned July 4th on the Deutschland from a four and one half months' oriental tour. Mr. Hubbard spent a month in Egypt going up the Nile as far as the second cataract; a month in Palestine going by horseback in a three weeks camping tour from Jerusalem to Damascus and thence via Baalbec to Beyrout; a week along the eastern coast and among the islands of the Mediterranean, stopping at several points including Smyrna, Tarsus, Isle of Rhodes, and thence to Athens.

About a week's time was spent each in Athens, Florence, Venice, Rome, Switzerland and Paris, and two weeks in London. He reports a very enjoyable and profitable tour. Mr. Hubbard's health is not at all good at present, but he hopes after a period of rest that it may improve.

FLORISTS' CONVENTION.

The seventeenth annual convention of the American Society of Florists was held in Buffalo, August 6—8. President O'Mara delivered an address reviewing the work of the year. Secretary Stewart reported a membership of 734. Treasurer Beatty reported receipts of \$3,000.45, balance on hand \$2,023.25 and \$1,425.17 in the permanent fund. Reports were made by state vice presidents. The society's charter obtained from the United States government was accepted. In the discussion of the new constitution and by-laws, article V, relating to the matter of co-operative societies, was provocative of much discussion, which at times became quite heated; but the matter was finally disposed of by striking out the entire article, and the appointment of a committee of five, to be named by the president later, to redraft this article on the lines of the Pennsylvania Horticultural Society, and other bodies having working sections.

It was decided to meet at Asheville, N. C., next year, that place receiving 70 votes; Milwaukee was the choice of 66, Nashville 2. The following officers were elected: President, John Burton, Chestnut Hill, Pa.; vice-president, J. W. C. Deake, Asheville, N. C.; secretary, William J. Stewart, Boston; treasurer, H. B. Beatty, Oil City, Pa.

IOWA NURSERIES.

As Observed by M. E. Hinkley of Mt. Vernon—Five Leading Industries in the Cedar River Valley—Sherman's, Wedges, Patten & Son's, Osage and Elmer Reeves' Properties, the Latter in Minnesota—A Visit to Each.

During one of the hot weeks of July, M. E. Hinkley, of the *Fruitman*, Mt. Vernon, Ia., made a trip up the Cedar Valley. He thus describes his experience:

Take a map of Iowa and put your finger on the Cedar River at Waverly. Then run a line 90 miles northwesterly through Charles City and Osage to Albert Lea, Minn., and you have covered the location of five great nurseries. Thirty miles from the Reeves nursery at Waverly brings you to the Patten and Sherman nurseries at Charles City, seventeen miles more brings you to the Gardner nursery at Osage. From there it is forty-two miles to the Wedge nursery at Albert Lea, Minn. These enterprises were started from 15 to 30 years ago and have had a steady development. They have become large business ventures, and the mammoth scale of their work is but little realized by the horticultural world. The section they occupy is a leading nursery center of our central northwest.

WEDGE'S NURSERY.

The lakes about Albert Lea drain into the Shellrock, which is a branch of the Cedar. We begin where the waters start and follow them down stream. This nursery is the second in importance in Minnesota. Mr. Wedge is a life long tree man, having a positive inclination to the work. His estate comprises two farms with Albert Lea lake and city between them. There is a large orchard on the old place, but the home and nursery are on the new place. The mellow, sandy, loam soil, is especially adapted to nursery work. Mr. Wedge makes a specialty of Minnesota trees and all trees from northern stock and seeds. He grows evergreen seedlings literally by the million, importing great quantities of seeds from Northern Europe. There are great beds of transplanted evergreens, large blocks of apple, one, two and three years old, besides plum and shade trees. Then there are many acres of young grapes, forest seedlings, small fruits, etc. Mr. Wedge is enlarging and perfecting his system to meet the demands of an expanding trade.

OSAGE NURSERY.

Gardner & Son is a firm name well known in the northwest. Their grounds are in the suburbs of Osage, and comprises several tracts of rich bench land, easy of culture and conveniently located. Mr. Gardner was the first man to raise evergreens from seed on a large scale, west of the Mississippi. This work he continues but of late years has added a full line of stock. As you ride through block after block of fruit, shade and ornamental trees, you naturally ask where it all goes to and are told that it is "scattered from Arizona to Manitoba." At the headquarters a gasoline engine and deep well give abundant water supply and the grounds are made attractive with fountains, irrigated flower beds, and an artistic display of ornamental trees.

SHERMAN'S NURSERY.

This nursery for the business done and amount of stock raised ranks with the two or three largest in Iowa. It is just west of Charles City, some two miles from the Cedar, and has both timber land and prairie. Millions of evergreens are raised under shade. Roses and ornamentals are started in greenhouses. The amount of apple trees and general stock grown can only be described by the word enormous. Riding through these grounds and noting the arrangements for business, one cannot but admire the mind that controls and directs. Mr. Sherman is still a young man, but has proved himself gifted with business ability and tireless energy.

PATTEN & SON.

This nursery, one of the oldest in Iowa, is south of Charles City, but begins in the suburbs. One tract comes down to the Cedar. Another is two miles out on the prairie. Patten & Son are well equipped for

the business. There are large cellars and packing sheds and a great amount and variety of stock in excellent condition. No one in the west has had more experience or is more careful in growing and selling trees than Mr. Patten. His son Ernest, now going into partnership, has been brought up in the business and brings to it the energy of youth and taste and skill in the work. Mr. Patten's experiment work in fruit production is so prominent and long continued that sometimes his nursery business seems overshadowed, but it is there, it is big and it is expanding.

ELMER REEVES.

The Waverly nursery is located southwest of town one-half mile, along the line of the I. C. Railway branch, and two miles from the Cedar. The same features prominent at other places visited, were found here. Vast beds of evergreen seedlings and transplants, heavy blocks of plum and apple trees, ornamentals and small fruits in great variety. Mr. Reeves is a horn experimenter and parallel with nursery work; he carries his testing plantations, which are developing into fine orchards. His business is steadily enlarging, and considering the way in which it has been founded and advanced, one can safely predict a greater future for the Waverly nursery.

FLORISTS' ESTABLISHMENTS.

At the annual convention of the Society of American Florists at Buffalo last month a letter was read from the Department of the Interior at Washington, accompanied with a statement showing by states and territories the leading facts tabulated to date relative to florists' establishments throughout the country. The number of establishments up to period of tabulation was 3,360; number of establishments with buildings, same; total area, 27,315 acres; improved area, 21,268 acres; value of land and buildings, \$32,494,250; value of buildings, \$14,321,604; value of implements, \$893,913; value of live stock, \$254,745; value of products, \$10,497,513; value of products fed to live stock, \$59,656; amount expended for fertilizers, \$225,791; amount expended for labor, \$2,458,123. These figures represent the States of Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania Rhode Island and Vermont. There are 597 establishments in Massachusetts, value of their products, \$1,512,581; in New Jersey, 494, value of products, \$1,960,558; New York, 983, value of products, \$2,866,357; Pennsylvania, 732, value of products, \$2,232,543; Connecticut, 168, value of products, \$508,590; Rhode Island, 108, value of products, \$295,774. These figures represent the value of the flowers and plants, grown in the different states mentioned.

PROFESSOR BAILEY IN CALIFORNIA.

Regarding Prof. Bailey's visit to Redlands the California Cultivator says: "He lectured twice and was listened to with breathless interest. He was taken to see the beautiful environments of the city, and though he has twice visited Europe, and is familiar with Germany, Sardinia, Switzerland and Italy, yet he says he has never looked upon as beautiful a city as Redlands, nor has he ever seen such excellent culture as is shown in our California orchards."

John S. Kerr, Sherman, Texas, writes under date of August 15: "Texas has enjoyed fine rains locally this month, August, mainly in East, North and Southwest Texas, with showers throughout, greatly benefiting nursery stock and cotton crops. Many local sections, however, are still very dry. Nursery trade prospects are average, I think."

GEORGIA HORTICULTURISTS.

Annual Meeting at Milledgeville Last Month—President P. J. Berckmans' Address—San Jose Scale Well Under Control—Pecan Culture—Results of Spraying—Committees Appointed on Legislative Work—Officers Elected—Exhibits of Superior Flowers and Fruits.

The annual meeting of the Georgia State Horticultural Society convened at Milledgeville, Ga., August 7th and 8th. The morning session Aug. 7th was called to order at 11 A. M., President P. J. Berckmans in the chair. Owing to the railroads having refused free transportation to the members of the society the attendance was smaller than usual; only about 100 members being present. The refusal of the railroads to grant free transportation did not have any influence upon a number of the absentees, as the members from North Georgia were prevented from attending on account of being in the midst of their peach shipping, the season being from a week to ten days late this year. The sessions of the society were held in the court-room of the Baldwin County Court House. The room was decorated with magnificent specimens of palms and ferns. Many of the specimens would do credit to any first-class professional florist. The plants above mentioned were all grown by ladies of this thriving town. The mayor of Milledgeville, Hon. Julius A. Horne, made the address of welcome which was responded to by H. A. Matthews and W. D. Hammock in behalf of the society.

Then followed the address of President P. J. Berckmans; he gave a practical talk and laid particular stress on the denudation of our forests. He urged that some legislation be taken to prevent the useless and reckless cutting away of our forest trees. He also impressed upon the fruit shippers the necessity of using a uniform package in the shipping of their fruit, careful and regular packing. Prof. H. B. Buist, horticulturist of Winthrop Normal and Industrial College, Rock Hill, S. C., followed next with an address on "Horticulture in Our Schools".

The afternoon session was opened by a talk from J. P. Fort, of Mt. Airy, Ga., upon insectivorous birds. This was followed by a report from State Entomologist W. M. Scott, showing upon the map of the State of Georgia the distribution of the San Jose scale, and saying that in every instance where the scale had been discovered in the state it had been vigorously fought and sprayed with kerosene and was under full control. In some orchards which were badly infested two years ago they have succeeded in almost totally eradicating the scale. This demonstrates that when the scale is fought according to the directions given by Prof. Scott the fruit growers need have no fear of its getting beyond their control. The brown rot is more to be feared than the San Jose scale.

The night session was a most interesting one, Entomologist Scott and Assistant Entomologist Fiske giving most comprehensive lectures upon noxious and beneficial insects, these lectures being illustrated by a series of beautiful lantern slides. At the end of the night session, the ladies of Milledgeville tendered a delightful reception to the members of the society.

The morning session of Thursday, August 8th, was opened by a discussion upon pecan culture which is becoming a very

profitable industry in the South. This was followed by a discussion on brown rot which disease was very disastrous to the plum and peach crop in certain sections of Georgia this year. In many instances where Bordeaux mixture was used, the fruit crop was saved; but in other instances spraying with Bordeaux seemed to have no appreciable effect upon the brown rot. If these cases where the brown rot was so fatal were investigated, it would probably be found that the spraying was not properly done.

The following officers were elected for the ensuing year: President, P. J. Berckmans, and the following vice-presidents: second congressional district, B. W. Stone; fourth James Cureton; sixth, R. E. Park; eighth, H. M. Starnes; tenth, Dr. Neil McInnes; secretary and treasurer, L. A. Berckmans.

Macon, Ga., was selected as a place of meeting for 1902. A committee on legislation was appointed, this committee to go before the legislature and ask for an additional appropriation for the entomological department, the present appropriation being inadequate. A committee was also appointed to draft a bill to prevent the destruction of insectivorous birds.

The display of fruit and vegetables was small, but the specimens shown were of superior quality.

KALAMAZOO CONSOLIDATION.

The Kalamazoo, Mich., Gazette-News, under date of August 31st, says:

Papers for the consolidation of the two leading nursery companies of this section of the state, the Central Michigan nursery and the Kalamazoo Nursery and Floral company with a capital stock of \$50,000 have been forwarded to Lansing. The new company is composed of a number of the leading and most influential business men of this vicinity and a more extended and extensive policy will be the result. The acquisition of additional capital was made necessary by the rapid and constantly increasing trade enjoyed by the old companies. Under the new consolidation a brisk and progressive push will be made in keeping with the enviable reputation already established. Credit for the large business already enjoyed by the Central Michigan nursery, which practically absorbs the Kalamazoo Nursery and Floral company, is in no small measure the result of the efforts of its general manager, Mr. Charles A. Maxson, who although a young man yet in the prime of life, is looked upon and regarded as an able, enterprising and courteous gentleman, full of that wide awake business enterprise and keen perception so essential to business success of the present day, and a gentleman who possesses the fullest confidence of his associates and all with whom he has any social or commercial transactions.

The sketch and cut of Mr. Maxson which appeared in the NATIONAL NURSERYMAN are appended.

GOVERNMENT TO SEND TREES.

The September issue of "Success" says:

Next spring the secretary of agriculture will distribute throughout the country young trees and seeds. Each member of congress will be asked to furnish a list of constituents to whom he would like to have trees or seeds sent. The seedlings will be grown in the government propagating houses, and forwarded to their destinations with specific instructions as to how they should be raised and cared for. In this way, the government expects to start several million new trees every year.

"We hand you herewith our check for \$1 in settlement for another year's subscription to the NATIONAL NURSERYMAN. We find it a very valuable paper, and cannot well afford to get along without it."

Among Growers and Dealers.

The Saddler Brothers have purchased the Home Nursery at Bloomington, Ill.

Enos B. Engle, York City, has been appointed nursery inspector in Pennsylvania.

C. M. Stark, Louisiana, Mo., visited Western New York nurserymen last month.

The Pacific Coast Horticultural Society has been formed with headquarters at San Francisco.

The Fredonia N. Y., Seed and Nursery Co., has been organized by Lewis Roesch and Frank M. Roesch.

Israel Kinney, Lanesfield, O., 70 years old, has retired from nursery business on account of failing health.

H. J. Rhodes, nurseryman and florist, of Honolulu, H. I., has been visiting trade establishments in this country.

William Pitkin and family, secretary of Chase Bros. Co., Rochester, N. Y., passed a portion of the summer in the Adirondack mountains.

Charles Waltus, for many years in the greenhouse department of Storrs & Harrison, Painesville, O., has removed to Boston with his family.

Secretary Goodman, of the Missouri Horticultural Society, having heard from 300 points, states that the best Missouri can hope for is 40 per cent. of its apple crop.

The Fair Oaks Nursery Company at Oak Park, Ill., has been incorporated; capital, \$30,000. The incorporators are Edward Payson, A. E. Berry, and R. K. Bickford.

The crop of apples for 1900 was 215,000,000 barrels, which at, say, \$2 per barrel, gave \$430,000,000. The average annual value of the wheat crop is about \$300,000,000.

The report of the twenty-sixth annual meeting of the American Association of Nursemeymen, held at Niagara Falls, June, 12 and 13 has been issued by Secretary Seager.

Harry T. Montgomery, president; Frank W. Glen, secretary, and Jackson V. Parker, treasurer, have incorporated the Planters' Nursery Co., in Chicago; capital stock, \$20,000.

George Nicholson has resigned the position of curator of the Royal Gardens at Kew, England, on account of failing health. He is the author of the "Dictionary of Gardening."

The Tree Planting Association of New York reports that since January 1 it has planted 931 trees in the streets of the borough of Manhattan and 1,947 in other boroughs of the greater city, making a total of 2,880 trees.

The M. Crawford Co., Cuyahoga Falls, O., says that the Miller was their best strawberry this season, with the possible exception of the Challenge, which originated with J. R. Peck, Breckenridge, Mo., and which they are testing.

W. H. Tincher, nurseryman, at Decatur, Ill., says the American Florist, drew a quarter-section of land in the Lawton district of Indian Territory at the recent opening and contemplates embarking in the nursery business there.

The Clinton Falls Nursery Co., of Owatonna, Minnesota, has been incorporated under the state laws of Minnesota, with a capital stock of \$50,000. Thomas E. Cashman is president and manager; M. R. Cashman, secretary, and W. H. Hart, treasurer.

The Canadian tariff imposes a duty of three cents on each budded or improved fruit or shade tree imported, and an ad valorem duty of 20 per cent on shrubbery from the United States; but seedling stocks for grafting and florists' stock in general are admitted free of duty.

The dutiable import of plants, shrubs and vines amounted to \$4,774 in June, 1901, against \$9,206 in the same month of last year. The free import of seeds amounted in June, 1901, to \$54,194, against \$41,478, the value of the imports in June, 1900. The dutiable imports of seed amounted to \$37,620 in June, 1901, as against \$69,285, the value of these imports in June last year.

State Entomologist William B. Alwood, of Virginia, states that certificates of inspection issued by the State Board of Agriculture of New York must be signed by an entomologist and bear evidence that the inspection has been made by a person trained in entomological work.

Inspection of nursery stock for insect pests is now in force for Pennsylvania. The law went into effect August 1, and hereafter all nursery stock coming into the state will be required to have attached to it a certificate stating that it is free from San Jose scale or other injurious pests.

In response to a query the New York commissioner of agriculture has made this ruling: "The inspection of nursery can only be made when a nursery exists; but if you were to collect plants from the forests and attempt to ship them, the transportation companies would regard such plants as nursery stock, which can only be shipped under the law when accompanied by a copy or certificate of inspection."

The New England Association of Park Superintendents at its fourth annual meeting at Hartford, Conn., elected the following officers: President, John A. Pettigrew, Boston; vice-presidents, Maine, A. D. Smith, Portland; New Hampshire, W. H. Richardson, Concord; Vermont, A. D. Farwell, Montpelier; Massachusetts, W. D. Whiting, Cambridge; Rhode Island, J. D. Fitts, Providence; Connecticut, Theodore Wirth, Hartford; secretary, G. A. Parker, Hartford; treasurer, J. H. Hemenway, Worcester.

A correspondent of the "Horticultural Advertiser", England writes: "With the present facilities for transportation, there is no valid reason why all classes of hardy nursery stock may not be shipped to and from the United States with perfect safety and success. If the stock is carefully dug and lifted, thoroughly well packed without exposure, and the drying of the roots prevented in transit, and the tops packed so as to avoid evaporation as far as may be, all this material should be, and can be, safely transported the entire shipping season both spring and autumn."

WOMEN IN HORTICULTURE.

"Women are more painstaking in small details than the men, and in horticulture this is of prime importance. I think in the future horticulture will be a great field of employment for women."

Thus spoke George T. Powell, principal of the Briarcliff Manor School in Westchester county, N. Y., in response to a question regarding the prospects of the two women who are students at the school. There are two general types of students at the school; those of considerable wealth who are studying horticulture with the idea of becoming competent in controlling agricultural land, and students who expect to make their livelihood from the practice of agriculture by becoming farm managers or experts in some particular line.

The first year of the new school is about completed. Twenty-seven students are registered. The work is very practical. Of the 65 acres making up the school grounds all are under close cultivation, says the Rural New-Yorker, the labor being done entirely by the students. The practice of tile drainage is followed quite extensively, and extensive methods are practiced in all the processes of cultivation. The soil is treated heavily with commercial fertilizers. These the students mix themselves, following formulas which have been found by experiment to be the test for the particular soil for which the fertilizer is intended. By this method the soil which has become poor from former neglect now furnishes astonishingly large crops. A small peach orchard but two years from the bud had in many cases over 100 well-set peaches to the tree.

VIRGINIA DEMANDS.

Regarding the refusal of State Entomologist William B. Alwood, of Virginia, to accept certificates of inspection from the authorities of New York State, Assistant Commissioner of Agriculture Flanders says:

This Department is issuing certificates to nurserymen as provided by the laws of this state. The agents employed for the inspection are those provided by the New York State Civil Service Commission, having passed technical examinations prepared by the highest authorities of the state. No one has ever questioned the character of the system of inspection and the work done since the law was passed. The authorities of Virginia have made arbitrary rules as to who shall sign certificates in the state of New York. Prof. Alwood says that he does not know our inspectors, notwithstanding their names and addresses have been sent to him. While all the inspectors in this state may not be "professional" entomologists, they are men of large experience in horticultural work, and from extensive practical experience in such work, they are thoroughly posted on the destructive insect pests, as well as plant diseases. I am convinced that no inspections in the United States are more carefully made than in our own state.

The department declines to ask for the "endorsement" or the approval of any one where not provided by statute, believing it has no right to thus apparently question the duly legalized existing condition of things.

The certificates are issued by the commissioner according to existing laws, and great care is taken to see that the work is well done, and until results showing to the contrary are found, it seems to us that we have no right to question the adequacy of the legislative provisions.

I am arranging a meeting with the secretary of the Eastern Nurserymen's Association to consult on the position the Virginia people have assumed which is seemingly adverse to interstate commerce laws.

Long and Short.

Twenty thousand peach trees are offered by Eugene Covey, Penfield, N. Y.

James M. Kennedy, Dansville, N. Y., presents a list in another column.

H. B. Kemp, East Freedom, Pa., makes a specialty of Kieffer pear. He has other stock.

Columbian raspberries may be had at the nursery of F. H. Teats, Williamson, N. Y.

The last call for the season on labels has been issued by Benjamin Chace, Derry, N. H.

Apple, pear, cherry, plum and peach are specialties with McNary & Gaines, Xenia, Ohio.

Fall bulbs and plants in great variety are offered by James Vick's Sons, Rochester, N. Y.

H. M. Simpson & Sons, Vincennes, Ind., has a large line of nursery stock, especially one-year cherry.

The largest grower of grapevines in America, George S. Josselyn, Fredonia, N. Y., asks a list of wants.

Apple in large surplus is offered by E. S. Welch, Shenandoah, Ia. Grafts made to order. Complete line of nursery stock.

Carl Sonderegger, Beatrice, Neb., offers Black locust seedlings, Box elder, ash osage and White elm seedlings; also surplus of apple.

Cherry trees, apple seedlings, pear, mulberry, Osage orange, ash and box elder seedlings may be procured of J. A. Gage, Beatrice, Neb.

Apple seedlings, budded roses, currants, gooseberries and a general line of nursery stock may be had of Peirson Bros., Waterloo, N. Y.

The Alabama Nursery Co., Huntsville, Ala., offers pecan trees for fall of 1901 and spring 1902 grown from selected Texas thin shell nuts.

Japan pear seedlings, apple trees, Kieffer pear trees and apple seedlings in large variety can be secured of F. W. Watson & Co., Topeka, Kan.

A full line of fruit trees, ornamental trees, small fruits, etc., is carried constantly by the well known firm of Ellwanger and Barry, Rochester, N. Y.

Albertson & Hobbs, Bridgeport, Ind., have for the fall of 1901 and next spring the largest supply and the most complete assortment of stock they have ever grown.

Apple trees, two year; peach trees, complete list; Kieffer pear, one and two year trees; buds of peach, pear and plum can be obtained of J. G. Harrison & Sons, Berlin, Md.

All the leading varieties of nursery stock in large quantities, grown right and handled right, can be had at the great nurseries of the Storrs & Harrison Co., Painesville, O.

A writer in the Rural New Yorker says: "Black Soluble Insecticide Soap is first offered this season by V. Casazza Bro., 190 Prince Street, New York. We have made several trials of it on aphids and other soft-bodied insects, and find it very effective. It quickly rids the plants and adheres well, leaving a white deposit on the foliage, which persists after heavy rains."

J. G. Harrison & Sons, Berlin, Md., employ from 75 to 150 men, women and children daily in their nurseries, budding from forty to fifty thousand trees a day, working full force. They have lately added apple trees to their specialties, also Kieffer pear trees, which have both been a success. For this year their spring planting of apple trees was more than a million. They now have in possession seven farms which are used almost exclusively for growing choice nursery stock.

1,200,000 Black-Locust Seedlings, 800,000 Ash Seedlings,
400,000 Box Elder Seedlings, 300,000 Osage Seedlings,
200,000 White Elm Seedlings.

We also have a surplus of Apple, 5 to 6 feet, $\frac{3}{4}$ inch and up. All stock will be first-class and well graded. Prices very low.

GERMAN NURSERIES.

Carl Sonderegger, Proprietor, - Beatrice, Nebr.

Pecan Trees For FALL 1901
and
SPRING, 1902

A fine lot of 3 and 4 feet and smaller grades.

Grown from selected Texas Thin Shell Nuts.

Can supply in quantity and solicit correspondence.

ALABAMA NURSERY CO., Huntsville, Ala.

The Syracuse Nurseries

A General Assortment of
BUDDED APPLES, STANDARD PEARS, PLUMS
an extra choice lot of

PEACHES

also, a fine assortment of

ORNAMENTAL TREES.

We issue no trade list, but will be pleased to make low prices by letter. Send your want list. We also have a fine assortment of extra size Apples, Pears, Plums and Cherries which we offer at low prices in order to clear the ground.

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OFFER FOR FALL, 1901, AND SPRING, 1902,

Apple, Peach and Carolina Poplar

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CHERRY, 1 and 2 year, PEAR and JAPAN PLUMS.

General assortment of small fruits.

Correspondence solicited.

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BRAULT & SON, DIRECTORS

are now taking orders at very favorable prices
for delivery next fall, of

Nursery Stocks

grown by them, guaranteeing first-class quality,
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From One Year Plants

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Fruit Tree Seedlings and Ornamentals. Pear Apple Plum
and Cherry and Angers Quince Cuttings. All grown
specially for the American trade. Pear and Crab Apple Seed.

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A large stock of Clematis, leading varieties.
Not Quite a Million but an Immense Quantity.

Write for Prices.

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Apple Seedlings on new land,
Honey and Black Locust
Two and three year
Osage Orange
One and two year

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Pear Seedlings, Mulberry Seedlings, Osage
Orange Seedlings, Ash Seedlings, Box Elder
Seedlings, Asparagus, 1 year heavy, Rhu-
barb, 1 year heavy.

All heavy, well graded stock. We have just returned this 21st of August
from a tour of inspection of all the Seedlings of consequence in the West, and
it is our opinion that next November N. T. Apple Seedlings will be the real
thing. We have been very fortunate with our plan this season and can supply
fine 1/4 inch grades as well as all other sizes.

GET OUR PRICES

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GRAPES**

7,000 Everbearing Peach. A valuable novelty. Our bearing trees
now loaded with fruit of various sizes. Has never failed to fruit.

225,000 Amoor River Privet. The best evergreen hedge plant.
Superior to California Privet.

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Strong Field Grown Roses. Standard varieties.

Try our **NEW CLIMBING CLOTHILDE SOUPERT**
a novelty of great merit

Biota Aurea Nana. The best of all dwarf Biotas. A perfect gem. Was
not injured when mercury was 3° below, while the old Biota Aurea
(its parent) was badly frozen. An immense stock 10 to 30 inches.

200,000 Palms. Latanias, Phoenix and Kentias.

25,000 Caladiums. Fancy leaved, **dry Bulbs**, 1 to 2 1/2 inches in diam-
eter 50 best named sorts.

Dwarf Oranges, Lemons, Limes and Pomelos. (Grafted on Citrus
Trifoliata). Finest stock we have ever grown. Fruits second year.
Unsurpassed for conservatory purposes.

Cannas, Camphors, Guavas, Sub-tropical Trees and Plants and a gen-
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287 Main St., Buffalo, N. Y. 287 Main St., Buffalo, N. Y.

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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"So long as the planter has enthusiasm the nurseryman should have hope."—PROF. BAILEY.

Vol. IX.

ROCHESTER, N. Y., OCTOBER, 1901.

No. 10.

FRUIT GROWERS' PLANS.

**Rapid Growth of Membership of New York State Association—
Won First Prize at State Fair—President Yeoman's Address
—Report on Fruit Statistics and Marketing—
The First Field Meeting.**

The New York State Fruit Growers' Association held a field meeting at Olcott Beach on Lake Ontario, August 14th; 250 were present. It was stated that 92 of the fruit growers present represented 4,292 acres of fruit with a cash value of \$858,400.

In the course of his address President L. T. Yeomans, of Walworth, N. Y., said:

It is an inspiration to meet so large and enthusiastic a gathering of fruit growers in a locality famous for its fruit. After my ride of yesterday through your beautiful orchards, I am convinced that you know how to cultivate, prune and care for your orchards, and grow apples famed for excellence in quality and keeping. Do you understand as well how to gather, pack and market them so that you may realize all you should for your labor? The business end of fruit growing requires an entirely different kind of ability from that of growing the fruit. The successful grower is oftentimes the one who is fatally lacking in those business qualifications so necessary to an advantageous sale. In fact, only a very small per cent. of growers realize what they should from their fruit. This is especially true of the smaller growers. The business end of fruit growing is one of the most important features for which our association is organized, and it is only by co-operation that we can bring about a better condition of affairs in this respect.

Look at the foreign markets. Why should we not be able to export our surplus fruit to foreign shores and receive satisfactory prices for it as California does? Surely we can raise as good fruit, but we are not posted as well as we might be on packing and marketing in attractive packages, or looking into the demands of certain markets. There is a chance for education along this line, and when we grasp the situation, we will be in position to establish our fruit on foreign shores. The opening up of foreign markets to our choicest fruits will be successfully accomplished in the near future, and will be of incalculable value. Why may not pears be more profitably shipped from New York to Europe than from California? The quality of ours is far better, the distance 3,000 miles less, and the saving in freight about \$300 per car. The fruit growers of California are organized through its fruit exchanges. We are not. Organized effort is all we lack; everything else is in our favor.

It is less than six months since the association was organized. It has now nearly 350 members and is steadily growing.

Our fruit census has, in its initial trial, in a very unfavorable year, satisfactorily demonstrated its value and importance. It is, on all hands, conceded to be more accurate and reliable than any other fruit crop report of the year, and numerous requests have been received for it from parties whose interests are antagonistic to ours. These reports alone are worth more to every fruit grower than the membership fee of the association. Through our efforts the grower will be educated to better and greater uniformity in packing. The time should not be far distant when the members of this association will place the brand of the New York State Fruit Growers' Association upon every package of fruit sold by them. The brand must be a guaranty of choice fruit. There is always a demand for such, in attractive packages, at good prices. Some education will be necessary, and some members

may drop out who think they are smarter than their neighbors, but as time goes on the number of such will grow smaller. Delaware has adopted such a system, and it has proved successful. Each grower is given a registered number, and if the packages he sends to market are not up to standard, the merchant knows whom to censure. On the label are also these words: "Contents of this package guaranteed as good all through as on top." The trade-mark is in the shape of a sticker, and is pasted on each package sent to market.

Chairman W. T. Mann, of the committee on fruit statistics and marketing, reported:

The government reports are not accepted with confidence, partly from lack of knowledge concerning their character and the data necessary to make proper use of them, and partly from an inherent fault which it will probably be impossible ever fully to overcome. The original information is furnished by a very large corps of correspondents selected primarily with reference to their ability to estimate the cereal or so-called staple crops. Primary consideration is given to that class of products, and only secondary to fruit. The great majority of these reporters are not fruit men, and are incompetent to render correct reports of fruit crop conditions. This fact is well illustrated by a comparison of the report of the statistical division and our association's report on the apple crop in July. The former reported a crop of 40 per cent. of normal; ours, based on information furnished by members, gave an average of about 20 per cent., or one-half of the former. Our report was fully as high as facts would warrant, the government's twice as high as it should be. It was the fault of their system.

The fact that the "weighted" averages are based upon the preceding national census admits a source of possible wide inaccuracy. Accurate averages cannot be obtained until the actual yearly production for a term of years can be obtained, so that the real relative importance of the various sections can be known. Such information should be obtained by the Department of Agriculture through the statistical division, as is now done for all other crops reported in the monthly bulletins. That it is not done shows the secondary importance attached to the fruit crop, notwithstanding the fact that the leading fruits, especially the apple, rival most of the staple crops in commercial value.

LOUISIANA PURCHASE EXPOSITION.

From Roswell, N. Mex., Parker Earl has written to Secretary Aull of the committee on agriculture, Louisiana Purchase Exposition, St. Louis, 1903, in part as follows:

An important display in the line of grapes should be by planting in the spring of 1902 a complete exhibit of all known varieties of American grapes, some 300 to 400 varieties, in well prepared ground in the open air, planting model vines which will make a strong growth in the summer of 1902, and be in full fruitage in the summer of 1903. The same method should be followed with the European class of grapes, only these should be grown in a suitable conservatory. Very large vines should be procured from California, which will show the peculiar training of this class. Something like 100 varieties of this class should be planted. This combined display of grapes can be made more complete and instructive than anything heretofore attempted.

Our people are familiar with orchard trees and an attempt at an exhibit of bearing trees of these species would not have sufficient novelty to justify the cost, but the display of the fruits should be larger, and from more countries and climates than has been made before. I suggest that the fruit products from all the territory embraced in the Louisiana purchase should be shown together and along-

side the exhibits from the old states. But to still further show the comparative values of the old and the new parts of the United States, and the values of both compared with the same classes and varieties grown in all other parts of the world, extensive exhibits should be drawn from all countries. With the more perishable fruits this last will not be practicable, but apples and pears can be brought from all the nations of Europe, from China and Japan, from South Africa, New Zealand, New South Wales, Tasmania, etc. From every clime where the apple tree grows I would bring its harvest. This pomological exhibit from all around the world would be exceedingly attractive, impressive and instructive, and would be one of the most notable events of the great fair.

I would secure bearing trees of oranges, lemons, limes, shaddocks, pomelos, etc. These would all have to have glass protection. They should all be planted in the spring of 1902 and so cared for as to be in luxuriant growth and fruitage during the entire term of the fair. In this connection certain other tropical and sub-tropical trees should be secured, such as the camphor, the nutmeg, the cinnamon and other spice trees of commerce, the rubber and other trees whose products have great value, and a great variety of trees whose woods are of greatest commercial and artistic value.

It is in your power to create a grander exposition of the arts and industries of our civilization than has been organized in any country. I greatly mistake the wisdom and energy of your management if this is not accomplished. Among all the noble things you will do, none will give so much pleasure to the millions who will come to see your work and read your lessons as to what can be done in this supreme department of beauty and grace—in the domain of Horticulture.

NURSERY OF J. LAING & SONS.

Following is an account in the *Gardeners' Chronicle*, London, England, of a visit to the tree nursery of J. Laing & Sons, Forest Hill, England:

In this department, not having visited the nursery since 1897, we noted very considerable additions, ornamental (picture trees and shrubs) as well as common species and varieties, fruit trees and fruit bushes, being found in greater quantity than heretofore, and in a thrifty state. Of varieties of conifers we may mention *Picea pungens* Kosteri, a variety with yellow variegation, and *Picea alba* var. *aurea*. *Acer californicum* (?) *aureum* is a satisfactory variety with telling foliage; as are likewise *Cerasus Mahaleb* variegata, *Catalpa bignonioides* var. *purpurea*, the color being especially good in the young leaf; *Cratægus Oxyacantha* variegata, *Cornus brachypoda* aureo-variegata, *Robinia aurea*, *R. angustifolia* elegans, very pretty leafage, and *R. inermis* variegata, *Fraxinus novæ anglie*, *Pyrus sulcifolia*, a weeping *Morus nigra* in fruit, *Caragana arborea pendula*, quite a handsome variety of a very stiff habited species; *Ulmus minor*, misnamed, probably a form of the Japanese *U. parvifolia*; *U. umbraculifera*, *Populus trihocarpa*, new. The fruit trees and bushes have made, notwithstanding the dry weather, excellent growth in this heavy land; and most varieties of apples, plums and pears on quince stocks, were abundantly fruited. Every popular variety of apple is grown on the dwarfing and the free stock, and even young trees on the latter were noted that they were heavily laden with fruit. Dwarf-trained peaches, nectarines and stone fruit generally make thrifty but not too vigorous growth, and the trainiers were busily engaged in "tying them out."

LAWN PLANTING

In an address on "Lawn Decoration" before the Wisconsin Horticultural Society, F. C. Edwards, Fort Atkinson, Wis., said:

Pleasant landscape outlooks from the house should not be obstructed and the appearance from the street must have due consideration. The shade and ornamental trees should be arranged so that the lighter green foliage trees should be nearer the frontage and the darker leaved trees more in the background, as we get the best effect from the street this way, and have the dense foliage near the buildings for cooling effect and shade. The trees most desirable for the lawn are the cut-

leaved weeping birch, Schwedler's Norway maple, Norway maple, hard maple, horse chestnut, Weir's cut-leaved weeping maple, oak leaved mountain ash, Tea's weeping mulberry, Camperdown elm, catalpa. For the side and back grounds, Norway spruce, Colorado blue spruce, white pine, American white elm, Wisconsin willow. In the arrangement and selection of trees, good judgment should be used, so that some of them will stand in contrast of foliage. The planting of shrubs, if done with good taste, is a great addition to the appearance of the lawn. They should be planted on the waste places, side grounds and angles, but always in groups, and the question of foliage should be a prominent feature. For example, *Spirea van houttei* (green), purple leaved herberry, golden elder, golden syringa, or *Cornus elegantissima*, enough to get the autumnal effect, and hydrangea (light green).

Vines can be made a great attraction on the porches, pillars and corners and among these *Clematis jackmanii*, *henryi* and *paniculata* are favorites, and their habits of growth are so easy to care for in the winter, and the bloom is superb. Herbaceous perennials are of great value if there is room enough to use them on borders and in beds. The same can be said of roses in beds, but use in the composition of soil at least one-half clay, one-quarter fertilizer, one quarter sand, and then plenty of water, and liquid manures and cut them all back to at least 12 inches, and they are easy to cover and results are better in bloom.

About the future of landscape gardening, as applied to the home, I am very hopeful. Eastern colleges are taking up this study, and Western colleges will soon do the same.

AMERICAN POMOLOGICAL SOCIETY.

The Country Gentleman gives the following condensed report of the twenty-seventh biennial meeting of the American Pomological Society in Buffalo, September 12-13:

The twenty-seventh biennial meeting of the American Pomological Society at Buffalo, September 12-13, was neither a failure nor a success, but something of both. The attendance was fairly good, not large, but perhaps considering the distractions of the Pan-American just across the street, it was all that could have been expected. At any rate, it was a representative gathering, unusually so. The various parts of the country and the different fruit interests were heard from very generally. It was a gathering of intelligent, successful, sociable, amiable and delightful men. Whenever such come together in fraternal good fellowship the results are bound to be good. Everybody enjoyed himself and his comrades, and perhaps that is all that ought to be required.

There was less interest in the programmes of the various sessions, however, than there might have been. Discussion there was practically none. This was due to various causes, and is not to be attributed, for the most part, to a lack of interest. Still this condition served still further to abate the attention of those in attendance from the papers presented.

The one most serious blunder was in the selection of the hotel headquarters and in the provision of accommodations for the meetings. The society was put up at a little paste-board house of the variety specially designed for the temporary discomfort of Pan American visitors.

The meeting was a surprise to the most ardent friends of the society, except the secretary. There were scarcely any who thought the attendance would reach 100, but the actual paid membership reached nearly twice that, and the attendance at some sessions was over 300. The papers were all given without a failure, and there was a general enthusiasm that has not been exhibited since the great meeting at Grand Rapids 14 years ago. There is no question now that the American Pomological Society has renewed its youth, and will again become a power in horticultural matters. The fruit exhibit was made in Horticultural Hall in the exposition grounds, and drew off a few from attendance; but the great majority were loyal to the society and kept to their knitting while the sessions lasted. I had considerable curiosity to see how the officials would give 26 gentlemen (some with wonderful talking ability) a chance to air their opinions in five sessions, but it was done and a little chance given to others. President Watrous is a capable presiding officer, and kept things moving with celerity. The result will be a biennial report of great value. I never attended a horticultural gathering where there was so little useless talk, and this shows

that only earnest, business-like men were there, and that to talk business.

Delegates were present from all the Pacific States and Florida, and 27 other states. The present head of the large nursery of Vilmorin of France was present on Thursday, and made a short address. His grandfather, the originator of the nursery, was a very progressive man, and had both son and grandson educated in England. In addition to the nursery they have a farm a few miles from Paris, which three generations have beautified and planted.

ENGLISH SHIPPING METHODS.

In a communication to the Horticultural Advertiser, England, F. W. Kelsey of New York city says:

Another great difficulty not as yet directly affected by legislation is the lack of care in putting up and in shipping orders, especially for the United States. Some of the old well established and supposedly reliable houses on your side are surprisingly negligent and apparently indifferent in this respect. One of the best known English establishments sent a consignment of expensive evergreens last season, the roots cut short off and packed in such a wretched manner that every tree was practically dead before the stock left the nursery. A consignment of extra standard roses was made by another old established firm, on an order with the most explicit specifications as to size of stem, &c., which had been formally accepted by the growers before shipment, yet were found upon arrival in New York to be so greatly under size and inferior in every way that the whole consignment was promptly returned, causing loss, delay, and great inconvenience to all parties.

A third unfavorable experience the past season was the shipment from another English firm of a quantity of stock put up in the most unsuitable manner for export, without any order having been given, and the stock packed in such a manner that most of it was not only dead when sent, but had it been in good condition no one could have determined what it was, or in what packages, without going over every item of the stock on its receipt. Nothing whatever was shown on the invoice as to how the stock was put up, or what kinds were packed together. All were "dumped in" regardless of quantity, kind, or method, and with little protection to the roots, were, as a matter of course, practically worthless.

These instances are happily not the general rule, yet occur with sufficient frequency in shipments both from England and the Continent to cause much injury, and consequent detriment alike to the trade in both countries.

In this connection it is only fair to state that many establishments on your side put up and forward their orders for this country in a thoroughly first-class creditable manner. A consignment of specimen evergreens from 8 to 12 feet in height was received in New York the past season, every tree in perfect condition, and nearly every specimen now growing as though it had not been moved. With the present facilities for transportation, there is no valid reason why all classes of hardy nursery stock may not be shipped to and from the United States with perfect safety and success. If the stock is carefully dug and lifted, thoroughly well packed without exposure, and the drying of the roots prevented in transit, and the tops packed so as to avoid evaporation as far as may be, all this material should be and can be safely transported the entire shipping season, both spring and autumn.

As we become better educated to appreciate that the trade interests in these matters are in a large degree everywhere mutual, and that troublesome legislation and bad methods of growing and shipping stock in one country are inimical to all interests both at home and in other countries, there must be a constant growth and improvement toward better things, and everyone in the trade derive corresponding benefits.

H. B. CHASE, SECRETARY, ALABAMA NURSERY COMPANY, Huntsville, Alabama, August 36, 1901.—"We enclose money order to pay subscription to the NATIONAL NURSERYMAN for the coming year. Your publication is one that we do not want to be without."

W. L. KILLIAN & SON, SOUTH FORK NURSERY, Startown, N. C., August 30, 1901.—"Enclosed find check of one dollar, for which please extend our subscription to the NATIONAL NURSERYMAN for the coming year. We find it of great value to us in our business."

Among Growers and Dealers.

P. Ourwerkerk has gone to Europe.

The Michigan Horticultural Society will meet at Monroe, October 8-9.

A new packing house is being constructed by T. V. Munson, Denison, Tex.

The officers of the American Pomological Society were re-elected at the Buffalo meeting.

The Newport Nursery Company, Limited, Truro, Nova Scotia, has increased its capital stock \$20,000.

Prof. Bailey, Ithaca; John Charlton, Rochester, and Thomas B. Meehan were in Buffalo last month.

L. F. Hoffman's address is R. R. No. 1, Dayton, O., instead of Little York. His are the Stillwater Nurseries.

It is suggested that French chestnuts might be grown profitably along the shores of Lake Erie near Cleveland.

Storrs & Harrison Company, Painesville, Ohio, have put in a complete drainage system on the Barto farm of 40 acres.

Ellwanger & Barry, George S. Josselyn and the T. S. Hubbard Co. were awarded Wilder medals by the American Pomological Society.

Recent visitors in Philadelphia were Charles J. Brown, Irving Rouse, Rochester, N. Y.; J. H. Dayton, Painesville, O., and Professor Massey, Raleigh, N. C.

The Jewell Nursery Company, Lake City, Minn., had an exhibit in the form of a fort with mounted guns, and constructed entirely of assorted fruits, at the Minnesota state fair.

James Vick, of Rochester, N. Y., two years out of active business, has entered the establishment of D. Landreth & Sons, of Philadelphia, as manager of a department of that well-known seed firm.

The Flemish Beauty pears have been successfully grafted upon Wagner apple trees. The resulting pears are larger than the original and have no brown specks; the fruit is also superior in flavor.

It is reported that E. C. Barney of Monticello, Wis. will retire from the nursery business at the end of this season and that nurserymen are considering the establishment of another nursery near Chattanooga, Tenn.

The fumigating station at Niagara Falls will open for the treatment of United States Nursery stock from October 7th to December 7th inclusive. The regulations in force last autumn and spring will govern the inspection this fall. N. B. Colcock is custom house broker at Niagara Falls, Ont.

Of July 1st the Division of Forestry and three other scientific divisions of the United States Department of Agriculture were advanced to bureaus. This was provided for by the last session of Congress, which appropriated for the expenses of the Bureau of Forestry during its first year \$185,440.

Twenty-seven orchards have been established in as many counties in Arkansas, through the cotton-growing sections, by the state experiment station, for the purpose of fruit growing. The station furnishes the trees, while the land is furnished by the owner who is selected for his intelligence and promise to care for the trees as directed by the station.

Prof. Bailey says: "I must confess I was skeptical as to the existence of the 'plum-cot,' or the cross between the plum and apricot; but now that I have seen many of the trees in bearing I am fully convinced that he has produced plum apricot hybrids. The marks of plums and apricots are too apparent in the fruits and trees to be doubted. Perhaps the plums have received a greater share of Mr. Burbank's attention than any other kind of plant."

Investigations conducted by W. G. Vincenheller of Arkansas seemed to indicate that grafts made from whole or long roots and short scions are much more liable to injury by crown gall than those made with short roots and longer scions. The short root and long scion placed the union seven or eight inches below the surface, and at that depth trees are apparently less subject to attack. The results of experiments with grafting 30 varieties of apples, 200 grafts each, showed that most of the varieties were free from the diseased growth. The author believes that propagating trees by the method suggested, as a means for the prevention of crown gall, is worthy of trial.

SYNOPSIS OF LAWS

ORIGIN OF THE BALDWIN.

Relating to Insect Pests and Diseases of Fruit Trees—Regulations in States and Territories Regarding the Shipment of Nursery Stock—Supplementary to the Compilation by the NATIONAL NURSERYMAN.

The New York Department of Agriculture has issued a pamphlet giving a synopsis of laws and regulations of states and territories relating to insect pests and diseases of fruit trees. This is supplementary to the compilation made by the NATIONAL NURSERYMAN Publishing Company two years ago, in that it includes synopsis of laws adopted since that time.

Nurserymen desiring to ship stock into Georgia, Maryland, Michigan, North Carolina, Montana, New York, or Virginia should send to inspectors of those states for copies of the laws on the subject.

Duplicate certificates are required for shipment of stock to Georgia, Michigan, Ohio, North Carolina, Virginia.

Following is a table showing the essential information as to each state and territory:

STATE.	Certificates Required for Entry of Stock.	INSPECTOR.
Alaska, no law.....		Special agent, Sitka.
Alabama, no law.....		F. C. Austin, Auburn.
Arizona, no law.....		R. H. Forbes, Tucson.
Arkansas, no law.....		E. Walker, Expt. Station.
California.....	Yes	Alexander Crow, San Francisco.
Colorado.....		County Inspectors.
Connecticut.....	Yes	E. H. Jenkins, New Haven.
Delaware, fumig'n required	Yes	Wesley Webb, Dover.
Florida.....		H. A. Gossard, Lake City.
Georgia.....	Yes	W. M. Scott, Atlanta.
Idaho.....	Yes	
Illinois.....	Yes	Prof. S. A. Forbes, Urbana.
Indiana.....	Yes	Prof. James Troop, Lafayette.
Iowa.....	Yes	Prof. H. E. Summers, Ames.
Kansas, no law.....		Prof. E. A. Popenoe, Manhattan.
Kentucky.....	Yes	Prof. H. Garmon, Lexington.
Louisiana.....	Yes	
Maine, no law.....		
Maryland.....	Yes	A. L. Quaintance, College Point,
Massachusetts.....		Dr. C. H. Fernald, Amherst.
Michigan, license fee.....	Yes	D. W. Trine, Lansing.
Minnesota, no law.....		State Entomol't, St. Anthony Pk.
Mississippi, no law.....		
Missouri.....	Yes	Geo. B. Ellis, Columbia.
Montana.....	Yes	C. H. Edwards, Missoula.
Nebraska, no law.....		
Nevada, no law.....		
New Hampshire, no law.....		
New Mexico, no law.....		
New Jersey.....	Yes	Dr. J. B. Smith, New Brunswick.
New York.....	Yes	C. A. Wieting, Albany.
North Carolina, license.....	Yes	Franklin Sherman, Jr., Raleigh.
Ohio.....	Yes	Dr. F. M. Webster, Wooster.
Oklahoma, no law.....		
Oregon.....	Yes	State Bd. Hort., Salem.
Pennsylvania.....	Yes	John Hamilton, Harrisburg.
Rhode Island, no law.....		F. W. Card, Kingston.
South Carolina.....	Yes	A. P. Anderson, Clemson College.
South Dakota, no law.....		Prof. D. O. Saunders, Brookings.
Tennessee.....	Yes	State Entomologist.
Texas, no law.....		
Utah.....		J. A. Wright, Logan.
Vermont, no law.....		Entomologist, Burlington.
Virginia.....	Yes	W. B. Alwood, Blacksburg.
Wisconsin.....	Yes	W. A. Henry, Madison.
Wyoming, no law.....		

To all who are interested in horticulture in Maryland, the fourteenth annual report of the Maryland Experiment Station, issued from College Park, will be of special interest.

Jacob W. Manning, Reading, Mass., contributes the following to the Minnesota Horticulturist:

"About 1790, Colonel Loammi Baldwin, of Woburn, Mass., an eminent civil engineer, while surveying a route for the Middlesex canal (the first canal in America), came to a native apple tree on the Butters farm, in Wilmington, Mass., the fruit of which he believed in. After grafting it into his orchard he was free to give the fruit and scions to his many acquaintances. Baldwin's name for his favorite apple was "Pecker," after the marks on the bark of the tree made by the woodpecker.

"Colonel Baldwin was one of the founders of the Middlesex Agricultural Society in 1795, the first of its kind in America. The apple became so generally appreciated in Baldwin's day, that at a business meeting of the society, when he was present, a vote was taken, that with his consent the apple should be renamed the "Baldwin."

"It is well to designate in enduring granite the locality where such superb fruits as the Baldwin and Wealthy apples were born, sacred spots or Meccas where interested pilgrims may visit and see where good fruits began.

"I have guided many persons to the "Butters' Row" in Wilmington, Mass., on the Butters' farm, where the Baldwin apple came up, at least one hundred and fifty years ago."

NURSERY CULTURE OF APPLE.

J. P. Andrews, Faribault, Minn., in an address before the Minnesota Horticultural Society, on "Nursery Culture of the Apple" said:

In view of the fact that apple trees have root-killed four or five different winters during the past thirty years it is a good precaution to plant the very hardiest seed obtainable.

Where stocks are grown on a commercial scale, the common apple seed has been almost invariably used. Though French crab seed is used some it is probably no hardier, if any different, from our common apple seed. This year we saved a bushel or such a matter of the seed of the Siberian crab, Early Strawberry, Virginia, and some others and shall continue to use the Siberian hereafter on account of its hardness.

After separating the seed from the pomace it should be planted in new, rich, deeply plowed, subsoiled and thoroughly pulverized ground in the fall or early spring. If not planted till spring the seed should be thoroughly mixed with sand in the fall and remain out during winter where it will keep moist and freeze.

After growing one season, take up and pack away in the cellar in the late fall and graft during the winter, care being taken to keep the scions, stocks and grafts packed in sand or some material that will keep them cool and just moist, until they can be planted out in early spring.

To have good healthy apple trees they should be grown on elevated land, where the range of temperature is not so great as on low land, and on clay loam, where the wood will ripen early in the fall and on clay subsoil, that will retain moisture. The ground should be plowed deeply and subsoiled in the fall; then in the spring pulverize thoroughly to the depth of ten inches or more and plant the grafts six or eight inches apart, in rows four feet apart.

Cultivation should begin as soon as planting is finished and repeated at least once a week through the growing season, and as much oftener as the ground gets in good condition to cultivate after each rain. If very shallow surface cultivation is given during the fall, so that the ground takes up and retains the fall rains and early melting snows, it will probably prove a good protection against root killing—or late crops of oats or buckwheat may be grown to cover the ground to protect from root-killing.

The first year there will be no trimming required if all but the strongest shoot is rubbed off when they start growth in the spring.

Cultivation the second year should begin as early as the ground will work and continue through the growing season, as before, using more horse and less hand work as the trees get larger.

Pruning the second year should be almost nothing, simply cutting back any injured tips to perfectly sound wood and rubbing the buds off the bodies from the ground up to where the top is to be formed.

At the close of the second season the trees will be in nice shape for transplanting in the orchard, with a good top one year old, a good body two years old and a fine root three years old, that can be lifted out with almost the entire roots after the tree digger has loosened the soil around them. The trees will stand from three to six feet high, depending on the varieties, the season and the care.

But if these trees are calculated for the market they will have to be headed back in the spring and grown a year or two more, for the average planter wants more timber in his trees.

During this last year while you are engaged in tree culture you should also be cultivating the acquaintance of a tree man to sell them, and if you could hear him talk while doing his part of the work you would probably feel well repaid, and it may be all you will ever get for your four or five years of hard work growing and packing them for him.

In the discussion which followed J. S. Harris said: "Generally a nurseryman starts in with the idea that by using our crab seeds for root-grafting stocks, it makes the best stock to use for his purpose. I will just cite you one instance. E. S. Wilcox, of Trempealeau, Wis., one of the best fruit men in the northwest, but who is not now living, got that idea in 1873, after that hard winter, and thought the crab was the thing. He secured all the crabs he could get hold of and saved the seed and went to propagating trees on crab roots. His nursery proved a failure, and the originals planted were more or less a failure. The crab root is a success for grafting upon it the crab cion. The only success Mr. Wilcox met with was with the Utter and the Astrachan put upon this root, which grew more rapidly than upon the apple root, but after four or five years they were all toppled over. The only success he had was to graft the crab upon the crab root and top-work other varieties upon the branches, and whenever he found varieties congenial they were a success. I bought a good many trees from Mr. Wilcox on those crab roots, and some of them lived for seven or eight years. The crab root to use to make a root-graft is not reliable for a great many of our varieties. I believe that the road to success—if I lived in Dakota and had to have those roots I would make a dwarf tree—but the road to success for the general nurseryman is to secure seeds of the hardiest varieties as far north as he can secure them, and then you will get something into which nature has put the germ of a little more hardiness."

C. G. Patten (Iowa): "This I consider a very important question for the horticulturist of the northwest to consider, and as I have had considerable experience along this line I wish to rise thus early in your session to say a few words. As Mr. Harris has said, and according to my experience has said very truly, any one who relies upon the seedlings of the whole root of the yellow crab, or any of that type of crab, will meet with utter failure. I do not remember whether it was in one of the Minnesota papers I made a report a few years ago in regard to my work, but I will briefly state it here. After the winter of 1872-3, as you know, the roots of our trees were terribly killed all over the northwest; and the following summer a large quantity of seed of the cherry and large red and yellow crabs was planted, and the people planted the seed with a great deal of courage. I tried at least seventeen or eighteen varieties of the apple, as well as the Hyslop crab and one or two others that my memory fails to catch just now, and

I tried that on a very extensive scale. I grafted the first year, I think, at least 30,000. For the first two years many of those trees apparently prospered; they grew more vigorously than anything on the common seedling roots, but at three or four years old they began to show failure in vigor. The vigorous roots succumbed, and on many trees the root was dwarfed to a single stem. I tried it for two years, grafting at least 70,000 crabs; perhaps not quite as many as that—but the result of my experiment was an utter failure. There were a few trees, of course, that did better than others, but the result, as a whole, as I stated, was a failure."

Col. C. L. Watrous (Iowa): "It seems to me the sum of all this is that whoever attempts to try to raise a nursery of apple trees on the Siberian *pyrus baccata* stock, whether it be Russian or otherwise, is treading on extremely thin ice, and his experiments should not involve more money and time than he is able to lose. I have been watching Prof. Hansen's experiments for some time and noted what he put forth in a paper that contained many excellent things. One of his statements was that the day of piece root-grafting in the northwest was practically obsolete. If we could succeed by his plan whereby root-killing could be avoided we could afford to take up something new, but if we go into it on a large scale it may be at a loss to the nurseryman and to the planter of the trees, and it ought to be gone into very carefully and proved in some way at the state experiment stations, and that for a number of years, until the matter has been decided, until it has been fully decided. There is one thing that has not been spoken of here, and that is, that some good success has been had in propagating our common apple tree on the crab, on this same *pyrus baccata*, that is grown up to be five or six years old. The growth of the current year is used as a scion. Mr. Williams, of Nebraska, told Prof. Craig and myself that that was the only way in which he had success, and he puts it up a foot or two from the bottom of the tree; but he says in his experience the one thing you must not fail to do is to allow the crab tree to have its own top. If you wish to propagate or grow that as a side issue you can do so. If you cut the top of the crab and undertake to make a top out of your new apple you have organized failure then and there."

Prof. Hansen (S. D.): "To look at the question from the standpoint of the whole northwest I think it can be put in this way, that in a very large part of the country root-killing comes only once in a generation or two, and the people need lose no sleep on that account. In Minnesota and the north root-killing comes oftener, especially along the west line of Minnesota, where there is little snow. There you are forced to investigate the subject more closely. Then as you go farther north in North Dakota and the northern part of Minnesota, root-killing is a factor they have to deal with every winter, and then what are you going to do? All the cultivated apple stocks that I know anything about kill every winter, seedlings and the rest. We have to find something that will stand the rigors of that climate, and so far as I can see I do not know of anything else to try except the Siberian. With us we get the very severest freezing when the ground is perfectly dry and bare."

P. S. Peterson, Chicago, has returned from a European trip which lasted a year and a half.

Edward Payson, A. E. Berry and R. K. Bickford have incorporated the Fair Oaks Nursery at Oak Park, Ill., with a capital stock of \$30,000.

WORK OF THE BLASTOPHAGA.

We have referred to the success attending the efforts of George C. Roeding, Fresno, Cal., to grow the Smyrna fig in this country.

The problem of the caprification, or fertilization, of the Smyrna fig in Fresno county has been solved beyond all question, and on a commercial scale, at the Roeding orchard and nursery, about seven miles east of Fresno City. Last year the matter was in the experimental stage and was progressing very satisfactorily, "as an experiment," but this year the Messrs. Roeding are able to give ocular demonstration that the fertilization or fecundating process has spread through seventy acres of land planted to choice Smyrna fig trees.

Quite recently a Fresno Republican man was shown through the fig orchard by F. Roeding, George C. Roeding being in Asia Minor, studying the cultivation of the Smyrna fig on its native soil, and the following is the result of his observations.

The figs commonly grown in California are the black variety and the white Adriatic. There is no need of artificial aid in fertilizing these varieties. It is in the case of the Smyrna fig, the most luscious and valuable member of the fig family, that artificial fertilization has to be resorted to. The fertilization is physiological process, and in no way relates to the treatment of the soil. It is, in fact, a marriage of the male and female fig trees, brought about by the employment of a tiny wasp-like insect which conveys the pollen, or fecundating principle, from the one tree to the other, the same way that flowers are fertilized by bees and butterflies.

This artificial process is called caprification, because the wild male fig used in the work was obtained originally from the Island of Capri in the Mediterranean. A number of these wild Capri trees were introduced into the Roeding nursery a few years ago in immediate proximity to the acreage of Smyrna trees. The latter trees had been indeed fair to the eye and beautiful to behold, but before the caprification experiment there was no commercial future for the product, for before ripening, all the fruit except a few individual specimens, fertilized by hand, dropped off.

A fig expert from the Levant visited Fresno about four years ago and had several conferences with George C. Roeding. The problem of caprification was thoroughly discussed, and the experiments followed. The more the Roedings studied the problem the more enthusiastic they became over it. They had already solved the question of producing olives in commercial quantities in that part of California. They had also shown that citrus orchards could be maintained, with a commercial annual yield, far out on the plains. But this fig problem was something new and something important.

The Roeding nursery, situated as it is on the sink of Fancher creek, on an extremely fertile soil, offered every condition favorable to the experiment, if only the caprifying insects would do their work after being assigned to it. Two years ago a number of mysterious packages arrived at the Roeding nursery. They were from Asia Minor and contained male fig-tree fruit, containing the pollen and tiny wasps that were to distribute this from the male to the female trees.

The blastophaga is extremely minute, being barely visible to the naked eye. Scientifically the insect is called Blastophaga psene. Blastos means a germ, and the fact that the female gnaws its way into the fig intended to be fertilized may explain the rest of the derivation, which is from phago, to eat.

Armed with a microscope, one is able to see the process of caprification. On every female tree of the Smyrna type hung a number of little withered figs from the male or Capri tree. By means of a raphe or tiny cord these figs are suspended in such fashion that they cannot be easily dislodged by the wind till their mission has been accomplished.

Mr. Roeding split open one of these withered figs, and what a transformation! The interior was full of life. It was indeed a microcosm that was revealed, only there was one feature of it that does not obtain in human life. In the blastophaga world the males have nothing to do but stay at home, live luxuriantly and die contented. The males are pretty and yellowish brown in complexion; the females are ugly and black.

The emerging of the males and females from the cells in which they had been immured was easily visible under the pocket microscope. Then, after awhile, it was explained, the females would make their way out of the parent Capri fig through a tiny hole or "ostium" at the broad end. They would be laden with the pollen clinging to the interior of the parent fig. After a brief flight the perfect female insect would make its way through the ostium or tiny opening at the broad end of the budding female or Smyrna fig, and there—in the search for a place to lay its eggs—transfer the pollen to the stigma within. Every fig so visited and fertilized would bear fruit that could be dried, packed, preserved and sold with the assurance that it would be the exact duplicate of the imported fig of commerce.

Mr. Roeding showed that the life of the blastophaga is contemporaneous with that of the crop of figs fertilized by their aid. That is to say, the June or first crop represented the end of the labors of the blastophaga introduced in the spring, and the beginning of the labors of those introduced in the summer. The blastophaga of the third crop are left to hibernate, so to speak, in the winter in the fig trees which are dormant during the season. One of the quaintest and most instructive spectacles was that shown by the microscope, immediately revealing where a tree had been fertilized. Every female blastophaga that enters a fig loses its wings in the process and submits to immuration in a prison from which there is no escape. She can but wander around within the prison cell, distribute the fertilizing pollen, of which she has become the transportation agent, and then die. For her there is no return. The microscope shows the tiny wings glistening at the entrance point of nearly every fig which a female blastophaga has visited and in which she finds her tomb.

Of course, there are enough brides among the blastophaga to insure the perpetuation and reproduction of the species, and this goes on at a rapid rate. Indeed, the rate is so rapid that from the few hundred introduced into the Roeding orchard a year or two ago, the progeny now numbers probably over a billion. The experimental stage has been passed and, though some human or artificial interference is required in placing the Capri figs with their insect content in the female trees, the rest is safely left to nature. It is a wondrous problem, this process of fertilization, but it seems destined in the near future, as the result of successful experiment, to provide California with an industry fully competing with the manufacture of wine and the packing of raisins. Even now the product of the Smyrna figs at the nursery is valued at \$300 an acre.

C. G. PATTEN'S EXPERIMENTS.

Charles G. Patten, Charles City, Iowa, is a nurseryman of 35 years' standing. He has some 125 acres in nursery, orchards and small fruits, and keeps a general line for the Northwest climate. He is located in a beautiful city of about 5,000 inhabitants, on the Big Cedar river, about half a degree south of Minnesota, in a most excellent semi-prairie region. The intense heat and drought of many days, mercury ranging every afternoon from 100 to 107 degrees in the shade has taxed many varieties of trees almost to the extreme limit, searing and almost burning the foliage and shriveling and drying the fruit. In experimental work such an extreme may leave some lessons with us that will be useful.

To a representative of the NATIONAL NURSERYMAN Mr Patten said: "Last winter the Iowa State Society decided to cross fertilize the apple to a considerable extent, and its committee having the work in charge decided on the Patten Greening as the most desirable tree on which to work such varieties as Ben Davis, Winesap, Black Annet and Seek-no-further. We also worked some of the best Arkansas winter apples on B. A. Mathews' large Native Crab. Had the season been favorable we should have had at least 3,000 seeds. But on five nights the mercury fell down to and so close to the freezing point, causing so much injury that we will not have more than one thousand.

"But my own special work this year centers more in the development of the varieties of the pear that shall be adapted to the Northwest. In this work I have to acknowledge courtesies from horticulturists in Illinois, Missouri, Kansas, Nebraska and Iowa, in the way of information with reference to freedom from blight, hardiness, quality and fruitage of varieties. I finally determined that Angouleme, Anjou, F. Beauty and Seckel, were the most desirable sorts from which to obtain pollen. No one who has not undertaken a work of this sort can understand fully the difficulty of securing just the information needed, and then have the pollen gathered and sent so as to be received in perfect condition. I am especially indebted to the horticulturist of the Illinois station for kindly interest or assistance, C. H. Barnard, of Table Rock, and E. F. Stevens, of Crete, Nebraska; B. F. Smith, of Lawrence, Kansas; Wm. H. Barnes, secretary of the Kansas State Society; B. A. Mathews, of Knoxville, and M. J. Graham, Adel, Ia., and Prof. J. C. Whitten and his assistant, N. O. Booth, of Columbia, Mo. The pollen sent me from the latter station was most excellent, especially the Angouleme, which we used very liberally and with considerable success on two very hardy almost non-blighting sorts that we have. We will secure fully 600 seeds from these crosses. I have two or three sorts from selected seeds fruiting this year that give encouragement for this more scientific work.

"The results of the extensive experiments here have been almost blotted out by the long-continued and intense heat that has prevailed here, so that we shall have to wait another year's fruitage before we can speak very definitely of results."



CHARLES G. PATTEN.

FLORISTS' NURSERIES.

W. N. Rudd says in the American Florist:

"Should the florist have a nursery?" I unhesitatingly and emphatically say, "In the average case, No!" Unless the extent of the ground at hand and other considerations warrant the employment of special labor to be devoted exclusively to the nursery, the work must be done by the greenhouse hands. Such men are seldom competent, and they almost universally dislike and shirk the care of hardy stock. Your true greenhouse man will cultivate the carnation and let the weeds grow in the nursery every time.

A patch of shrubs in nursery rows, even if not unkempt and full of weeds, as the florist's stock of such things generally is, is not a good place to sell from, and is not calculated to increase trade. The proper course to pursue is to arrange to have at least one good, well developed specimen of as many varieties of perennials, shrubs, trees and fruits as can be arranged tastefully about the grounds. This, in combination with properly placed clumps of greenhouse plants, will add tremendously to the attractiveness, and consequently to the trade pulling power, of the establishment in both departments.

One well done specimen planted for show will sell more than a thousand pieces in nursery rows. One bunch of Brighton grapes picked from the vine in the florist's grounds by a customer familiar only with the Concord as a hardy grape, will do more to secure an order for a grape plantation than a ten acre lot in nursery condition.

Then sell your goods by sample, have your samples as good and of as many varieties as possible. Eat your own fruit, enjoy the beauty of your own shrubs, and buy your planting stock from some large and reliable nursery. If the nursery trade grows sufficiently to warrant it, get some more ground, hire competent help and go into propagating and growing this stock as a separate department of your business.

Long and Short.

California privet may be obtained of Josiah A. Roberts, Malvern, Pa.

A full list of standard stock is offered by W. T. Hood & Co., Richmond, Va.

The proprietors of the Emporia Nurseries, Emporia, Va., want to sell their nurseries and trade, or one-half interest.

Bargains in Norway maples, magnolias, Carolina poplars, Osage orange, Irish juniper, Norway spruce, Japan snow ball are offered by George Achelis, West Chester, Pa.

Small fruit plants are a specialty with Allen L. Wood, Rochester, N. Y., 1,000,000 raspberries, strong tips, 200,000 transplants; 200,000 currants, 2 years, No. 1; 100,000 gooseberries, 200,000 grapes, 2 years old, No. 1; 100,000 rhubarb, 2 years old, No. 1.

Recent Publications.

The Chief Forest Fire Warden of Minnesota, General C. C. Andrews, has issued his sixth annual report, being for the year 1900. It comprises 138 octavo pages, with numerous original illustrations of Minnesota forests.

An attractive announcement of books to be published during the autumn by the Macmillan Co., 66 Fifth avenue, New York, has been issued. Among the books we notice "Old Time Gardens" by Alice Morse Earle, author of "Stage Coach and Tavern Days"; "The Scott Country", "Highways and Byways of the English Lakes", "The Scenery of England", Volume 4 of "Cyclopedia of American Horticulture", "University Text Book of Botany", "First Lessons in Agriculture". A complete catalogue of Macmillan publications will be sent to any address on request.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSEYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

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One year, in advance,	-	-	-	-	-	-	\$1.00
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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

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Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., SEPTEMBER, 1901.

IOWA STATE FAIR.

M. J. Wragg was in charge of the horticultural department of the Iowa state fair. Treasurer W. H. Bomberger of the State Horticultural Society displayed Wolf river apples five inches in diameter, from an orchard on which not a drop of rain fell in more than two months. Mr. Wragg had a large exhibit of fruit. B. F. Ferris had a large exhibit of Russian apples, representing Northern Iowa. M. J. Graham of Adel, who took second prize on general collection of fruit, had over 100 plates on exhibition, among them twenty-five plates of Iowa pears.

B. A. Mathews of Knoxville had 175 plates on exhibit. Of these fifty-three were varieties of pears and twenty-one of plums. Competent judges stated that there was nothing like this exhibit at the World's Fair. Mr. Mathews has been engaged in orcharding at Knoxville for more than forty years and has been signally successful. His exhibit surpassed the

exhibits of fruit at the Pan-American. A plate of persimmons added interest and variety to his exhibit.

VIRGINIA SHIPPING MATTER.

It is believed that an understanding has been arrived at between the authorities of New York and Virginia regarding certificates of inspection of nursery stock.

Objection to the New York certificates was made by W. B. Alwood, state entomologist of Virginia on the ground that the certificates were not signed by an entomologist.

State Entomologist Felt has been in communication with Mr. Alwood and it is stated that certificates from New York signed by the commissioner of agriculture and the inspector who made the inspection together with the date, will be accepted in Virginia.

FRUIT FROM FRANCE.

W. C. Barry recently returned from the Pan-American exposition where he has acted as judge on a collection of fruit sent from Paris, France. The collection consisted of apples, pears, peaches, grapes and melons. The apples and pears arrived in perfect order, but the grapes, melons and peaches suffered considerably in transit. The black grapes arrived in perfect condition, but the white grapes were more or less damaged. The melons were entirely decayed. Some of the peaches were in good order. As a whole, the collection is quite interesting, as showing the fruit of another country alongside of our own. The packing was attended with great care and the shipment was en route about twelve days.

AMERICAN POMOLOGICAL.

In spite of adverse conditions the twenty-seventh biennial session of the American Pomological Society in Buffalo September 12th and 13th was of profit to all present. W. C. Barry of Rochester, N. Y., delivered the address of welcome. He urged greater attention to the value of fruits and their adaptability to certain localities. United States Pomologist Brackett in response said he believed pomology would reach perfection in the Western states. President C. L. Watrous, in his annual address, said the consideration of variety merits should be the first consideration of the society. Professor Bailey described California's commercial orcharding and urged co-operation in large areas of special crops. Through the remarks of Mr. Barry, Roland Morrill, L. A. Woolverton and George T. Powell it was shown that united efforts in shipping and careful grading of fruits are necessary.

TREE DISTRIBUTION NEXT SPRING.

Professor Galloway of the Bureau of Plant Industry, having the direction of the distribution of forest trees next spring, has succeeded in procuring some new and rare species of ornamental trees, says an exchange. Among them is the little known Chinese *Gymnocladus*, *G. chinensis*, which, with the Kentucky coffee tree, *G. canadensis*, are the only two species known to exist.

PORTO RICAN FRUIT FARMS.

Fruit farms are the latest scheme to promote Porto Rican interests, says American Gardening. A company with a capitalization of \$100,000, and backed by New York and San Juan firms, is negotiating for land in different portions of the island, on which will be grown all kinds of tropical fruits, winter vegetables and tropical nursery stock, both fruit and ornamental. The produce will be shipped to New York. A farm of 100 acres is already in operation at Rio Piedras, six miles from San Juan.

MCKINLEY EARLY GRAPE.

Allen L. Wood, Rochester, N. Y., on September 28th, exhibited at the NATIONAL NURSERYMAN office a bunch of white grapes of a variety which he has named "McKinley Early." It is a cross between Niagara and Moore's Early and gives promise of being a valuable addition to the list.

The McKinley Early ripens two weeks earlier than the Niagara, is fully as productive and has berries like the Moore's Diamond. The bunches are compact and firm and well withstand handling. The fruit is sweet and there is no acid flavor around the seeds. It is fully as strong a grower as is the Niagara and should prove to be a good shipper. Nurserymen who have seen it say the McKinley Early is an unusually good grape.

FINEST FRUIT EXHIBIT.

S. D. Willard, Geneva, N. Y., who has charge of the horticultural exhibit at the Pan-American exposition, says that the New York State fair at Syracuse had the finest exhibit of fruit ever made in America, considering the number of plates shown, the great variety and the extremely high quality.

The New York State Fruit Growers' association, organized six months ago, exhibited 2,255 plates of fruit and won the first prize, \$300; exhibit as follows: 950 of apples (195 varieties); 664 of pears (64 varieties); 161 of grapes (66 varieties); 154 of peaches (45 varieties); 40 of quinces (7 varieties), and 286 of plums (74 varieties). The Western New York Horticultural society won second prize, \$200, with 1,312 plates, as follows: 500 of apples, 435 pears, 64 peaches, 13 quinces, 27 crab apples, 104 plums, 168 grapes and 1 blackberry. The Eastern Horticultural society won third prize, \$100, with 584 plates—12 of peaches, 2 nectarines, 64 plums, 269 apples, 113 grapes, 122 pears and 2 quinces.

ORIGINAL GREENING APPLE TREE.

The American Cultivator says that the original Greening apple tree is still standing on the farm of Solomon Drowne at Mount Hygeia in North Foster, R. I. The tree was a very old one when the farm was sold in 1801. The seller informed the purchaser that it was a pity the old tree was going to decay, as it produced the best fruit of any tree in the orchard.

The town of Smithfield claims to have presented the world with this variety, based on the following facts: On the farm of Frederick W. Winslow, a few rods southwest of the lime kiln on the northern verge of Fruit hill, stands a Rhode Island Greening tree, which is locally known as the "daughter tree." This tree is a limb of the mother tree, which was broken off

in the September gale of 1815, and which, upon being thrust into the rich, moist soil, took root and became an independent tree. The mother tree was planted by Mrs. Winslow's great-grandfather during King George II.'s reign in 1748. It was, therefore, 141 years old when it was cut down in 1889. From these two trees Mr. F. M. Perry, a nurseryman from Canandaigua, N. Y., secured many scions, which were disseminated throughout New York and the middle states.

Authentic records of trees of this variety that were planted about 150 years ago in the soil of north Providence, on the farm of the late Lemuel Angell, are still in possession of that family. It was introduced into the old Plymouth colony from Newport in 1765; from there it was carried into Ohio in 1796 by Gen. Putnam.

AT ROSE HILL NURSERIES.

In an article in the American Florist on the P. S. Peterson Nurseries near Chicago, the writer says:

"The elder Peterson was for many years employed in the famous establishment of Louis Van Houtte, at Ghent, Belgium, but came to America in 1851, working for a time in eastern nurseries, but eventually locating near Chicago, where he steadily added to his real estate holdings until now the firm owns the largest undivided tract of land inside the city limits. In 1895 William A. Peterson, an only son, was admitted to the firm and the management soon devolved upon him. Mr. Peterson is an enthusiast, and one of the best read men in the profession. One of the firm's specialties is large specimens for immediate effect, but so deep is Mr. Peterson's affection for the treasures of his nursery that he admits that he never sees a noble tree, one which he has known from boyhood, uprooted and carted off to spend the balance of its days in a city park or on a lawn, but what he feels a twinge of regret not wholly compensated for by the check which is thereby grafted onto the Peterson bank account."

A TALE OF THE SOUTH.

The Peach Growers' Journal, Sussex, N. J., says: "It is said that the fancy prices received by orchardmen in Georgia the past season has started a peach craze and in some sections everybody who can get enough land to put out an orchard on has been making preparations to plant trees this winter. But many of them will have to wait another year before launching into the peach industry. All the nurseries in North Georgia and those in Tennessee have sold all the Elbertas and Emmas they have on hand.

"Agents for nurseries who have been canvassing Gordon county have accepted orders for nearly half a million trees that it is impossible for them to deliver. The great bulk of the people who have been making preliminary arrangements towards going into the peach business and not given much thought to buying trees at this early period and the news coming that all the Elberta and Emma varieties were sold fell like a bomb in their midst and created a great deal of excitement among those who had been at work clearing up ground and making other preparations. Many northern nurseries are being written to and if one should be found with a supply of Elbertas on hand it is safe to say, that all their trees will be bought at once."

PROPAGATION—BEST METHODS.

*Address by John F. Sneed, Tyler, Tex., Before the Texas Nurserymen's Association—Summary of Practice in the South—
Force Budding in June—Persimmons, Figs, Pomegranates, Cape Jasmine, Mulberries, Magnolias—As to Grafts.*

The following paper on "Propagation—Best Methods" was read by John F. Sneed, of Tyler, Texas, at the recent annual meeting of the Texas Nurserymen's Association at College Station Tex :

I do not know that I shall advance any ideas on propagation that are not generally known to most nurserymen. A great deal that I have learned is from experience, which you know, is often a hard teacher. If I can be of any benefit to any inexperienced brother, will cheerfully render assistance, but will say that I have a vast amount to learn myself in regard to best methods. As you know cuttings, grafting and budding are only done to produce the desired variety as there is no certainty in the production from the seed. Of course there are certain things that have been kept isolated from like species, and kept pure that will produce. Nearly all fruits have been contaminated in some way that makes the seedling very uncertain.

There are five methods which are in use in propagating stock: that is, by grafting, budding, layering, cuttings and from the seed. I deem budding the best method for propagating peach trees, as do other nurserymen, and it is more generally practiced; though good trees may be grown from grafting or cuttings. The first important step in growing peach stock,—be careful to get good sound clean seed, the smaller the better, as you get so many more per hushel. Bed them out or plant them in early fall, in moist earth to insure a good stand in the spring. If seed cannot be procured till in December or January, the seed should be soaked in water 24 hours before planting or bedding, and be sure to let the earth come in contact with the seed so they will not dry out. The better plan is to always plant or bed in early fall. There is no use to plant dry seed after January, for they will not come up till the following year. The seed bedded out should be planted in nursery as soon as possible, before they begin to sprout. The land should be prepared well and if fertilizer is used, do not deposit it in a furrow with the seed, as some strong heating manures are liable to kill the seed in germination.

Trees for May or June budding should be extra well cultivated and fertilized. Force budding should commence as soon as the stock is large enough to receive the bud. If seasons are favorable ten days are long enough for the bud to take hold, and then the top should be cut off just above the bud, and it will force out immediately. A great deal of danger to stock attends force budding in June if not properly understood, as the leaves are the lungs of the trees. The buds should be inserted above a limb or some leaves so that when top is cut off there will be plenty of leaves for the stock to breathe through, else the stock will perish or be injured by the severely hot weather. Some suckers should be left on the stock till the bud is 6 or 8 inches, then the stock can be trimmed clean, as the bud will have sufficient leaves to give a healthy respiration to the tree. In early spring when the weather is not so hot, buds can be inserted next to the ground and forced out

as dormant buds are without any danger to stock. As you know, budding can be done at any season of the year, when there is sufficient sap so the bark can be raised by knife or quill. Plums, apricots, prunes, almonds, etc., are generally propagated as peach trees are; all can be grown on peach, marianna, or other plum stocks. Great many plums are grafted on piece roots during winter, or ground grafted in spring, which do as well as budded trees. Japanese plums and apricots do not live well for me grafted, but do extra well budded.

Apples should be grafted early, say, in January or February, and I think it a good idea to line them out in nursery as they are made if weather is favorable; if not, bury them in damp sphagnum moss, sand or saw dust, but be sure not to have either very wet, as it will sob or sour the grafts, etc., and they should be put away in cellar or shelter so as not to be exposed to rainy cold weather. I use good seedlings for grafting and try to have the pin and stock about the same size, so as to make a perfect union. If done early I prefer them wrapped with a waxed cloth, as it will prevent them throwing out such a strong callous, and causing an enlargement at the union which is not good for the health of the tree. If grafting is done late, trees will be better wrapped with a waxed string, and the callous is not so strong. In grafting apples I cut off tops of seedlings, leaving about two inches of root, which I transplant in nursery and bud in summer or fall, very close to the ground. In the following year these buds make the finest and most vigorous trees that I grow, having a finer system of roots. I have better success with pears by planting seedlings and budding to them, and what buds fail to live the seedling can be ground grafted in the spring. Growing pears from cuttings, or grafting on piece roots is a very uncertain way to grow them in my locality.

To grow Japanese persimmons, I plant the seed of the native persimmon, and at one year old run tree-digger under them and cut their roots, which causes them to branch very much. The seedlings I ground graft in spring. Root pruned persimmons are sure to live in transplanting. I think pecans and walnuts will do well if root pruned in this way. Mulberries I graft on cuttings of *Morus Multicanlis*, making the stock or cuttings three or four inches long, and the pin about same length. I prefer the scions to the root to graft on, as they root readily. Cherries can be grown well by grafting on piece roots of the Mahaleb, and make a very nice tree at one year old. I left a thick row of Mahaleb trees in my nursery to bear seed. When the seed fall down under the trees in the shade and are covered, they come up by the thousands every spring. These I transplant in nursery during a wet spell in spring and they look large enough to bud first year. The buds that fail to take I use seedling in ground grafting, or grafting indoors.

Quinces, I grow from cuttings or by grafting a small apple root on end to start them. Figs, grapes, and pomegranates are grown from cuttings, except the Scuppernong grape, which can only be grown successfully by layering, all which should be put out early in winter. Raspberries are grown best from tips. Austin-Mayes dewberries can be grown well from tips and root cuttings. Blackberries do best from root cuttings. Chestnuts should be kept in moist earth all winter; never allowed to get dry or they will not come up. Chinquepins should also be kept moist and planted in nursery row at once; they are liable to come up at any time. It is best not to let walnuts, pecans and other nuts get thoroughly dry; if

they do, they should be soaked a while before planting. Sycamore, Lombardy Poplar, Silver Leaf and Carolina Poplar, Cottonwood, Catalpa, Weeping-willow, Blooming Willow, Box Elder, Cal. Privet, Crape Myrtle, Althea, Wisteria, Purple Lilac, and a number of other deciduous trees, shrubs and vines grow well in open ground, from cuttings. Roses can be grown by grafting, budding, cutting and layering, but I prefer the finer roses grafted on hardier stocks, as they make much stronger plants, finer roots and larger blooms. Ever-blooming roses usually have very weak roots. Prairie Queen, Seven Sisters, Manetta and some others are generally used for stocks. The cuttings of same should be put out in the fall, before they are injured by the cold, which will insure a perfect stand, and these can be budded very low in summer to prevent suckering so much; or ground grafted in fall or winter. Or the roots can be taken up and grafted in doors. The cuttings of some of these hardy roses can be used for grafting if done before injured by the cold. All piece root rose grafts should be planted out when made, as they will not stand to be packed away any length of time. Grafts should be mulched in winter so as to prevent injury from cold as much as possible.

I plant Cape Jasmine cuttings at any time during the summer, in nursery row, where I wish them to stand. First, prepare the land well and open with a spade for cuttings; leave the cavity open till well watered and then press the wet mud around them closely with the hands and shade with a twelve-inch plank by putting bricks under each end so as not to crush the cuttings, and they can get plenty of air. If weather is very dry water once a week. In a few weeks plants will be well rooted and planks can be removed. Brush would answer in place of plank. Or, they can be grown in beds in the same way. Magnolias are grown from seed, which I gather when ripe, never allowing the pulp to dry on the seed, as the oil will penetrate and kill the germ. Put the seeds in water as soon as gathered and in one or two days the pulp can be washed off easily through a coarse sieve. Or, if seed are planted as soon as gathered, in damp earth, it will draw the oil out. They should be planted in a latticed house which gives a partial shade, as the hot summer sun is too severe on the young plants in open ground. Irish Juniper, Rosedale Hybrids grow very well from cuttings if put out just before the spring begins to open. Arbor Vitæ are grown from cutting, grafting or from seed. Wild Peach are grown from seed or from suckers.

HIGHER STANDARD OF AGENCY TRADE.

The following address was delivered by C. C. Mayhew, Sherman, Tex., on "A Higher Standard of Agency Trade" at the recent meeting of the Texas Nurserymen's Association:

The nursery business of this country is done largely through dealers, or agents as they are termed, though when we want to say real hard things about them and "tickle the ribs" of a part of our readers, we call them "tree peddlers." Whatever they may be, salesmen, agents, dealers or peddlers, we are interested in them and are practically one of them.

I do not remember ever reading any severe criticism on the "tree agent" or "tree peddler" but that I felt sure the writer was spinning his own yarn, and giving his own experience, sometimes slightly exaggerated; for the nurserymen who sell

their stock through catalogue, push their high-price "new creations" exactly as the agent does his specialties, and offer varieties of equal, and usually more value, at one-half, one-fourth and sometimes one-tenth the price asked for their wonderful new varieties.

Under our present system and present prices we are both in a manner excusable; for to succeed, we must sell stock at good prices, and specialties are all that we can offer at good prices with the hope of sales. So, I see no use of abusing the agent for doing exactly what he is taught to do by the nurseryman's catalogue.

I believe that conditions will remain as they now are just as long as we practice our present system of cut-price business.

Our standard stock is grown too cheaply, packed too cheaply and sold too cheaply for the nurseryman to succeed on strictly a high standard or method of business.

I do not believe there is any other class of business men in the country who do not offer their dealers more protection, and extend to them more courtesies.

Suppose a planter goes to a flouring mill for 1,000 pounds of flour—will they sell it to him any cheaper than his grocer would do? Certainly not. Or suppose he goes to the packing-house for a can of lard—will they charge him the grocer's price for it? Certainly they will. But suppose he wants five hundred or one thousand peach trees, and goes to the nurseryman, will he sell them for less than his dealer can sell them profitably? Why, he never thinks of his dealer. He sometimes consults his wholesale list of surplus stock offered to his brother nurserymen, and quotes the stock to planter at one half a cent per tree above the prices named therein. Should he get this bill, it might amount to some \$30, \$40 or \$50, but the stock will have cost him almost as much, or possibly more to grow it, but he thinks it is perishable stock—"if I don't sell it I may lose it, and I can't afford that."

The nurseryman may have a dealer whose stock account amounts to several hundred dollars each year, and on this class business he makes his living; still he will not protect the agent by giving him the same customary treatment that every other enterprise in the country gives its best customers.

I don't believe the output of the nurseryman (as long as it remains half as great as it is at present) can be sold without the agent, and I do think that he should be encouraged and protected in his work. I also believe that every time he induces a man, woman, or child to plant a good tree or plant of any description, he is that far a public benefactor. He may paint his pictures a little too bright in color, and lead them to believe that his stock is the only stock worth planting, and do various other things of which we do not approve, especially if he is selling some other fellow's goods in territory that we think belongs to us.

Still, he sells the goods, and so far has proven to be the only man who can sell them in quantity, and I believe we can help him (and ourselves as well) to reach a higher standard of business, by establishing a reasonable difference in the wholesale and retail prices, allowing him to make a legitimate profit on standard goods, thereby giving him the protection to which he is entitled.

By so doing the agent would not be compelled to push the specialties, or rather he might make a specialty of the most valuable sorts whether old or new. I believe a fixed difference between wholesale and retail prices of say 25 per

cent. minimum would do much towards raising the standard of both nurserymen and agent. I mean, by the difference of 25 per cent. minimum, that no matter what our lowest price on stock may be to a planter, our dealer or wholesale price should be at least 25 per cent. less.

I would like to hear other nurserymen's ideas.

PROFESSOR BAILEY'S COMPARISON.

As reported in the Country Gentleman, Prof. Bailey spoke as follows on "Some Contrasts of the Pomology of the Atlantic and Pacific Coasts," at the meeting of the American Pomological Society in Buffalo.

Differences in men and different environments lead them to look at things differently. The Massachusetts man, living on a farm which had been in his family for generations, and catering wholly to local markets, was different from the California man whose state was nearly as long as from Boston to Savannah, and much longer in range of climate. Why, the climate of California, rated by localities, is as varied as a Florentine mosaic. The mountains not only divide but dictate climates. The famous fruit valleys are limited in area and comprise but a small portion of the whole state. The climate is largely a matter of opinion. Most people who go to California go for the mild climate, and therefore assume that an eastern winter is something which every one abhors. This is a mistake. There are people who dislike unlimited summer with its glare and dust. To people who like winter, who like trees and sky in winter garb, who like to see vegetation change its dress in spring and fall, the climate of California has little attractiveness.

In fruit growing the East can learn much from the West. They have but thirty inches of rainfall in California, and five months of drouth, yet the moisture is so conserved as to answer all purposes, cultivation being the method. Careful tillage keeps the water in the soil long enough to grow the crops. California fruit is not larger than that

of New York, except when irrigated. Vegetables are of no account in California, they grow so easily. They grow so large that two policemen can sleep on one beet. Many of the special crops California is famous for, like raisins, prunes, almonds, lima beans, etc., are the result of having a period of entire absence of rain, and a rain when the seeds and fruits and wheat are maturing would cause infinite damage. In the dry season they are as anxious not to have a rain as eastern people are for one. The present inhabitants of California are business men who plan and execute in a business way. There will be no orchards in California to renovate, because the owners do not need renovating. They do things thoroughly and up-to-date. They have undoubted faith in California, themselves, and their climate. California not only borrows and grows many European fruits, but the horticulture and botany of Australia is leavening the gardening there. Little that is Australian has yet reached the Eastern States. Horticulture is more monotonous in California than in the East, because of large specialities which constitute the entire business of some sections.

Amateur gardening for pleasure is almost unknown, and although geraniums and fuchsias grow as high as the house, there are not nearly as many kinds of things grown there as here. However, the large ranches are getting unprofitable and are being cut up into smaller homes, which will mean enlarged facilities for private gardens and amateur pleasures. There are none but distant markets for California products, and in the matter of local markets the horticulturists of the Eastern States have a great advantage. Fruit growing rightly managed in New York can be made as profitable as in California. We can grow special fruits for local markets and California cannot compete, if we grow them to perfection. One of the features of California production is the large combination for handling of the products. There is little of the petty jealousy common here in California. He concluded with several items of advice to Eastern horticulturists: First, have faith in your location; second, till more carefully and thoroughly; third, co-operate. He thinks large bodies of specialists, like the grape growers of Chautauqua, could make it pay to send a man to California to study the working of co-operative companies. Fourth, become caterers to special markets as much as possible.

100,000 RASPBERRIES STRONG TIPS

FOR OCTOBER 1st SHIPMENT.

200,000 Raspberries

Transplants, of the following Varieties.

Columbian, Cumberland, Gregg, Hilborn,
Kansas, Mills, Mam. Cluster, Ohio,
Palmer, Loubigan, Shaffer's Col. Winona.

Also a large stock London, Cuthbert, and Miller
Red Raspberries.

200,000 Erie Blackberries

Root Cutting.

Also a full line of other Blackberries.

100,000 Gooseberries

Pearl, Downing, Houghton, Red Jacket,
Smith, Industry.

100,000 RHUBARB. Whole Root. Two Year, No. 1

200,000 CURRANTS

Two Year, No. 1

Tree, Cherry, Fay, Red Cross, Red Dutch,
Black, La Versailles, North Star,
Pomona, Prince Albert, Victoria, White Grape.

200,000 GRAPES Two Year No. 1

Heavy Vines of the following Varieties

Agawam,	Clinton,	Ives,
Brighton,	Delaware,	Moyer,
Campbell Early,	Diana,	Wilder,
Catawba,	Elvira,	Wooden,
Concord,	Etta,	Diamond,
Salem,	Vergennes,	Moore's Early,
Eumelau,	Jefferson,	Niagara,
Geneva,	Lady,	Neetar,
Green Mt.	Lindley,	Pocklington,
Hayes,	Merrimac,	Wyoming Red.

ALLEN L. WOOD

Write for
Prices

ROCHESTER, N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"What one man knows is not of less value to him because he shares it with another."—W. J. GREEN.

Vol. IX.

ROCHESTER, N. Y., NOVEMBER, 1901.

No. 11.

SHORTAGE IN STOCK.

Prices High on Small Fruits—Apple and Peach in Heavy Demand, Pear Steady, Cherry and Plum Strong—Many Items in Ornamentals Running Short—Break in Prices in Last Sixty Days Should be Followed by General Stiffening Because of the Prospect of Clean-Up.

XENIA, Ohio, Oct. 11.—M'Nary & Gaines: "The season opened up slowly, with an evident disposition on the part of purchasers to defer ordering until the last moment, and in consequence there has been an unusual rush of orders in mid-season. It has been impossible even with favorable weather to keep up with the demand for immediate shipments. It is too early yet to compare with former years, but it looks as though some lines would be entirely used up this fall. Apple are in heavy demand, pears are steady, plums have developed an unexpectedly strong market; cherries are in good demand, peaches are eagerly sought after from all quarters. So far, the season is quite satisfactory."

PAINESVILLE, Ohio, Oct. 10.—The Storrs & Harrison Co.: "It is too early to tell much about the present season's trade. Fall trade for early shipments never was larger up to the present time, and seems to run especially heavy on most lines of small fruits and ornamentals. Are having all and more than we can take care of promptly. If trade should continue in the same proportion, do not see anything to hinder a general advance in prices along all lines for spring delivery."

BLOOMINGTON, Ill., Oct. 9.—Phoenix Nursery Company: "The fall season has just opened with us, and from present indications we believe we will have a fair fall trade. There seems to be a good demand both in fruit and ornamental stock.

"We are having a great many inquiries now for late shipment for spring use, so it would seem if there is any surplus in stock, the surplus will be used up on late shipments. We do not, however, feel that there is any surplus, unless it might be in pears, standard and dwarf, and European plums. Cherries, apples, peaches, native, and Japanese plums are in unusual demand with us. While we have a large stock of native plums, we could have sold them several times over if we would let them go separate from other stock.

"Prices seem to have broken some in the last sixty days, as compared with what they started out at early in the season, but we believe they will recover as soon as nurserymen realize what a shortage there is in fruit tree stock, as well as many items of ornamentals. We are having an unusually good demand for ornamentals in all lines.

"From what we can learn from all sources, it would seem to us there would be an excellent spring trade, possibly the best we have had since the early 80's, and we can see no reason why nurserymen at this time should feel at all discouraged, and offer stock at less than cost of production, as some are now doing."

BRIDGEPORT, Ind., Oct. 8.—Albertson & Hobbs: "We are just now getting a good start in our fall shipping, and it is too early yet to give anything like a fair report on trade, collections, etc., but up to date our trade has been very satisfactory, our agents' orders in the office exceed those of any year since we have been in the business, and wholesale trade is all that we can handle.

"The season is dry with us and ground very hard, though commencing to rain a little to-night, and hope for better conditions from this on.

"The prospects are that stock is going to be cleaned up much more closely this fall than has been anticipated, and that many items will be found short for spring. We look for the spring clean-up to be the most satisfactory our nurserymen have had for many years, and that this will be one of, if not the best year we have known since the dull times. Can see no reason why collections should not be good, and why we should not anticipate fair prices for two or three years to come. Do not think that plantings this year were much, if any, larger than last, and as stand in many sections was poor, do not think there will be any large surplus of stock from this year's planting. Think we may look for some advance in price of some stock that has been so low. Possibly the price will decline on apple, cherry and one or two other items which have been so high, but prices generally will be more nearly equalized, which we believe will be of more advantage to the trade.

"Our own plantings last year were not heavier than usual, and think nurserymen, generally, are feeling pretty comfortable over the outlook. They have certainly been doing a larger line of improving than usual, almost all of the leading nurserymen adding largely to their storage capacity and doing so with good substantial buildings."

KALAMAZOO, Mich., Oct. 8.—Charles A. Maxson, treasurer Central Michigan Nursery Co.: "Our fall sales show a good percentage of increase over last year at satisfactory prices. The indications are very favorable for the spring trade and with our conservative methods we have a very small loss from collections.

"Our last spring's planting consists of 250,000 apple seedlings for this season's budding, in addition to a general assortment of other stock. We budded upwards of 700,000 peach seedlings. At the present time we have a surplus of apple and a fair supply of other classes of trees, shrubs, roses, etc."

NEW CARLISLE, Ohio, Oct. 9.—W. N. Scarff: "Our sales to date are comparing very favorable with last fall; would judge equally as good, at any rate.

"All stock in our line (small fruits) is quite scarce, and prices naturally higher. Owing to the general drouth throughout the West, many plantations will be renewed, which will tend to make the demand good. This with the limited amount of stock will cause prices even better for spring."

HIGHER PRICES IN SPRING.

*The Outlook on Peach, Small Fruits, and First Class Apple Trees
—Demand Continued After Stock Had Been Cleaned Up in
Many Cases—Plums Were Disappointing—Good Growing
Season and Easy Digging Conditions.*

BRIDGEVILLE, Del., Oct. 9.—Myer & Son: "We are much pleased to be able to report so favorably on fall sales, which are larger on peach than for many years to the planters; in fact, we have sold very few at wholesale, and will only have a surplus of some sorts, as we expect a large retail trade in the spring. Our collection is so far unbroken, but there will be a shortage of some of the leading yellow varieties, such as Elberta, Crawford, late, Reeves' Favorite, and Chair's Choice. Apple stock in fair demand; Keiffer pear slow sale. Blackberries and raspberries in good demand. Prices are ruling good on all lines, and will no doubt be higher in spring on peach stock, owing to the shortage on this line all over the country."

GENEVA, N. Y., Oct. 8.—W. & T. Smith Company: "From present indications we will have a heavy fall digging. We are just fairly under way at the present time. The abundant rains which we have had have made digging fairly easy for this time of the year, but stock in general is quite green. From the present outlook, trade is just as brisk as last year."

FREDONIA, N. Y., Oct. 9.—T. S. Hubbard Co.: "Trade thus far this fall with us has been satisfactory, although perhaps not quite up to last year. Our correspondence indicates about the usual demand and we look for a large winter and spring trade. Prices have been about the same as last year, but the supply of stock in our special line is not as large as a year ago and we anticipate a shortage in some varieties of grape vines, currants and gooseberries before the close of the season, with an advance in prices on some of the leading kinds. It is too early yet to report on collections or the amount of planting next year."

WEST CHESTER, Pa., Oct. 8.—Hoopes, Bro. & Thomas: "We can report our fall sales so far as rather better than usual, and believe that when spring comes around, all desirable stock will be taken up. Collections this past spring were mostly good, but it is too early to say how they will be this autumn. We make our plantings about the same each year in proportion to our sales, so as not to have a large surplus."

MORRISVILLE, Pa., Oct. 10.—Samuel C. Moon: "We have had a fine growing season and all kinds of ornamental stock is in good condition and in abundance for usual demands, but not much surplus stock in this section. The weather is still warm and we have had but very little frost yet. Foliage is still full and green, and stock is not yet in proper condition for digging; consequently orders are not coming in as freely as in some past seasons, but from what we can see and learn of the market, we are anticipating a good fall trade and an unusually heavy trade for spring, 1902."

"Our young stock did remarkably well the past summer and we have a fine offering of ornamental seedlings and small sizes for nursery planting."

"As I do not raise or handle fruit stock I cannot tell much about it in this section. The fruit crop in general in this locality has been only medium in quantity and quality this season, but prices have been higher than usual."

ATLANTIC, Iowa, Oct. 16.—Silas Wilson: "We have had fine fall rains here that have put the ground in fine condition for fall digging of trees and plants. Trade is good and stock generally very fine; the demand for planting in the upper Mississippi valley is good. Fruit growers have to some extent at least forgotten their bad loss of two years ago. Native plum trees and cherry trees are scarce, and I believe now that all kinds of stock will be sold very close before spring trade is over."

"Farm crops are good and prices for all kinds of crops are very remunerative. If you don't want to sell a farm, you had better not offer it for sale. Peach crop in Southwestern Iowa was very heavy this year. I think the outlook for good winter's business was never better."

NEWARK, N. Y., Oct. 21.—Jackson & Perkins Co.: "It is a little early yet to give a very accurate report of this fall's trade. For this date we think it has been very good, indeed, and that there will be a decided shortage of nearly all kinds of stock before spring. As far as we are personally concerned, we think we never had so large a proportion of our stock engaged at this time of the year, as we have at the present time."

"It appears pretty evident that peaches will be exceedingly short before spring; roses also, especially standard varieties of H. P.'s are exceedingly scarce and some kinds will, we think, be almost unobtainable at any price. It is almost the same way with clematis. We think there are very few lines of stock, with the possible exception of plums and pears, that are in over supply this season. Cherries seem to be a trifle easier than for the past year or two, but are still well up in price and in strong demand."

"It is, of course, too early yet, to say much about collections, as few accounts fall due before the first of December."

Add In West

KANSAS APPLE ORCHARDS.

In marked contrast to the conditions in the East, where the apple crop is considered practically nil, is the following story from Kansas, as told in the Kansas City "Journal" under a September date:

B. F. Coombs of Kansas City has refused an offer of \$50,000 for the apples he has hanging on his apple trees in Kansas. The proposition was made by C. O. McDonald, representing Patrick Gleason of Le Roy, N. Y., who is known as the "Apple King." Mr. McDonald indicated that he expected the deal to be made, but Mr. Coombs stated still later that he had decided not to accept the offer.

"I have concluded, after careful investigation," he said, "that my crop will be worth several thousand dollars more than the amount is proposed to give."

Mr. McDonald expressed the opinion, after visiting twelve apple growing states, that Mr. Coombs' crop this year will be more valuable than that of any other man. He has 640 acres of apples at Parker, Kan.; 500 acres at Lane, Kan.; and 460 acres at Willow Springs, Kan. It is estimated that his entire yield will exceed 30,000 barrels. He will harvest 40 carloads of Jonathans alone. No other man in the world will have so many. His trees vary in age from 7 to 14 years and include the Jonathan, Ben Davis, Winsap, Missouri Pippin and a few other varieties.

Mr. Gleason, whom Mr. McDonald represents, handled 253,000 barrels—\$1,000,000 worth—of the kind of fruits last year. He has cold storage facilities this year for 300,000 barrels and expects to handle that many.

W. H. ROEDER, OSEOLA, MO., August, 28. 1901.—"I enclose \$1 for NATIONAL NURSERYMAN, I can't do without it."

THE WEST IN FINE SHAPE.

Recent Rains, Good Fruit Crop and Prosperous Business Conditions Cause Anticipation of Brisk Spring Trade—Little Surplus Except on Light Apple—Heavy Peach Crop in Nebraska Creates Demand in Eastern States for Stock—Retail Trade.

OTTAWA, Kans., Oct. 10.—F. H. Stannard & Co.: Our trade for this season has been very satisfactory, especially the retail trade, which is the largest in the history of our business. Our wholesale business is not quite up to last year, principally on account of the dry weather.

"Recent rains, good fruit crop, and prosperous business conditions, have put our western country in splendid shape for spring, and we anticipate one of the best spring trades we have ever had. In our judgment, there will be little surplus in the West, except on light apple."

CRETE, Neb., Oct. 9.—E. F. Stephens: "The apple crop for Nebraska has been very light. The peach crop has been surprisingly large for our state, and perhaps each and every tree that was old enough to bear was loaded down with all it could carry. This has checked the demand for apple trees and increased the call for peach trees. The feeling of the public in our state is rather against fall planting perhaps for the reason that many nurserymen dig so early in the fall in order to accommodate their dealers with early delivery that the trees are not in the best condition for wintering. Their customers have oft times failed successfully to winter trees so handled. This has increased the difficulty of making fall sales and deliveries.

"Our experience as commercial orchard planters favors digging trees late in the fall; last of October or first of November, and burying over winter. The farmers can then handle their trees and plants in the late fall and have the advantage of very early spring planting. The present feeling, however, is such that it is easier for agents to sell for spring than for fall, and the bulk of our trade will be for spring delivery, which at this time promises to be about 50 per cent. larger than last spring.

"Regarding the supply of nursery stock. There seems to be a sufficient stock of apple trees, and lesser demand for cherry trees and a necessity for purchasing a portion of surplus of peaches from states east of us. The season on the whole has been favorable for the growth of nursery stock. We have fine blocks of peach and plum trees running from 5 to 7 feet in height, and apple trees at two years running 5 to 7 feet.

"We have 40,000 trees in our partnership orchards besides large orchards at home. Frequent culture neutralizes harm of heat. We cultivated our cherry orchard twenty-five times this season."

SALT LAKE CITY, Oct. 19—Pioneer Nursery Company: "Our sales for fall are about as usual. It is too soon for us to even guess at the special features of the present season's trade. We think stock will be pretty well sold out before spring.

TOPEKA, Kansas, Oct. 21—F. W. Watson & Co.: "It is a little too early yet to compare value of fall sales with former years. We are now in the midst of packing. There is a good demand for two year apple, all grades, with prices inclined a

trifle lower than last season. Cherry in good demand, especially for lighter grades; one year blocks are being dug. Peach are getting scarce; No. 1 trees better price and better demand than for several years. Kieffer pear, slow sale with declining prices.

"Apple seedlings sold well, and from present indications the demand will exceed the supply before shipping season is over. There are more pear seedlings than usual, especially Japan, prices only about half as high as last season.

"The dry weather during the summer frightened quite a number of the nurserymen, but otherwise did no damage. Stock has ripened up earlier this fall than usual, and is in fine shape to handle. From present indications there will be no surplus stock to burn this spring."

WORSE THAN SAN JOSE SCALE.

The Riverside, Cal., Enterprise states that the board of horticultural commissioners recently found a small invoice of hothouse plants that had been sent there from Los Angeles, and on examination found them infested with purple scale, the worst pest that ever appeared in the state. The plants were all burned, as the only way of removing this dangerous enemy of horticulture. The shipping of purple scale to that city was an act that should never have been attempted, says the California Fruit Grower as it was the duty of the commissioners and inspectors of Los Angeles county to have destroyed it before shipment.

MAY SHIP INTO VIRGINIA.

In the last issue of the NATIONAL NURSERYMAN we stated that an understanding had been reached regarding acceptance of New York state certificates of inspection. Commenting on the matter, the Country Gentleman says:

It appears that Prof. Alwood of Virginia has taken a bold and unwarranted stand in refusing, a short time ago, to recognize certificates of inspection of nursery stock issued by the New York State Department of Agriculture, on the ground that the persons making the inspection were not practical entomologists and were unknown to him. He makes no claim that there is diseased stock from this state shipped into Virginia nor complaint that the work of inspection is not effectively done. His attitude is that until such time as he is notified by an entomologist of "known standing" of the competency of the inspectors he will not recognize certificates and will thereby exclude from Virginia stock sent from this state. Pennsylvania is being treated likewise. The doctrine that any state official has the power to stop interstate commerce goods coming into the state, without proof that the sale of the goods would be in violation of state statute, particularly where, as in the cases in question, the presumption is great that the goods are free from disease and could be exposed and sold without violating any law or regulation, is somewhat new and startling. Especially is this so when one considers that the San Jose scale statute of Virginia provides, in so many words, that the provisions of the law shall not apply to interstate commerce traffic. Prof. Alwood can inspect nursery stock on its arrival within his state, and if found diseased, destroy it; but he cannot shut out healthy stock lawfully.

This ruling of the professors, if allowed to prevail, would practically kill the entire trade of New York nurserymen in Virginia, and would open up an avenue for unfair competition on the part of the Southern nurserymen, for while New York stock was held out, they could easily and successfully grasp the market.

However, to satisfy the professor, Dr. E. P. Felt, our state entomologist, and a member of the editorial staff of this paper, has certified to the competency of our inspectors, all of whom were taken from the civil service list, and the certificates of our state department will in future be accepted.

IN THE SOUTH.

Demand for Nursery Stock Unusually Heavy This Year—Elberta Craze Worse Than Ever—Millions of This Variety Would Have Been Planted Had Supply Been Equal to Demand—Prices of Some Stock Advanced—Shortage in Some Lines.

AUGUSTA, Ga., Oct. 10—L. A. Berckmans of P. J. Berckmans Co: "The demand for the general line of nursery stock is unusually heavy this year.

"The 'Elberta craze' is worse than ever. Had the supply of this variety been equal to the demand, there would have been millions of this variety planted in the South this season. Fortunately the supply was not equal to the demand; in fact, the demand for all of the leading varieties of market peaches is unprecedentedly large this season. The remunerative prices obtained for the Georgia peach this year is the cause of this unusual demand. Of course, many of the planters who are totally inexperienced in commercial peach culture will make a financial failure of their venture, as many persons think the peach tree has only to be planted and allowed to 'hustle' for itself and bring dollars to his pocket. The essentials to commercial peach culture are proper location and varieties, a knowledge of horticulture, perseverance and capital.

"Prices of some lines of nursery stock have been advanced over last year's. There is a shortage in commercial varieties of peaches, cherries, some varieties of apples and pears. At present we see no prospect of an advancement upon present prices of nursery stock. Pecans are being planted on an extensive scale. Our state entomologist, Prof. W. M. Scott, is working hard to protect the fruit industry from insect and fungus depredations; and he has saved the horticulturists and farmers of this state thousands of dollars since he has taken charge of the entomological work."

SECRETS IN HORTICULTURE.

In a recent issue of the proceedings of the Columbus, Ohio, Horticultural Society is an article by W. J. Green on the subject of secrets in horticulture, to which the attention of nurserymen is directed. He says:

"My earliest lessons in horticulture were in the nursery, orchard and garden, in the arts of propagation of trees and plants and in the cultivation of fruits and vegetables. A desire for more extended knowledge than could be acquired at home brought me in contact with experts in various branches of horticulture. The ease with which such knowledge could be secured, because of the willingness of men of experience to impart information, was somewhat surprising. There was soon found to be a difference between men of the various branches of horticulture, however; in such branches as had become fully Americanized there appeared to be no secrets: all seemed to be open and free to every seeker after knowledge. At that time floriculture, and much that pertained to landscape gardening was, in my section, largely in the hands of foreigners. Among this class there were so-called secrets, and one not of the craft often found it difficult to get information.

"Explanations, when made, were often mystifying. There was an evident attempt to make simple processes appear difficult, and to magnify the skill of the successful propagator and grower.

"It appeared to me in those days as though florists were a conceited set, puffed up by a little success and spoiled by too much deference and flattery. This generalization was too broad, as I soon learned, but it was my lot to early make the acquaintance of some who seemed to think that a knowledge of plants and their culture ought not to become generally disseminated.

"This feeling among florists has now largely passed away, due very much to the influence of Peter Henderson and a class of men that has arisen since his time. Barry and Henderson have taught, and many other noted horticulturists have shown by example, that they held the belief that there ought to be no secrets in horticulture.

"It has been an avowed tenet among the foremost in the art that free knowledge of horticulture is best for all concerned. What one man knows is not of less value to him because he shares it with another. To share such knowledge freely and ungrudgingly means not only that the experience of others may be freely given in return, but that all horticultural workers will be benefited. There ought to be no horticultural secrets, for only by a general diffusion of knowledge can there be progress. If one could build about his premises a Chinese wall, taking care to shut out all advanced ideas from other sources, as well as to guard his own discoveries, he would soon find himself lagging in the rear of progress.

"One makes a serious mistake if he supposes that he can keep pace with the progress of the art without the assistance of others, and it is almost as great an error to think it possible to guard a secret. The conviction has become so strong that the individual is under greater obligations to the public than the public is to the individual, that but little consideration is shown one who is unwilling to share his discoveries with others. It is true that this doctrine may be carried too far. The public may ask too much of the individual, when it requests him to give up everything, in the way of discovery, without compensation. This is seldom expected, however; some things, like new varieties, have a market value, and the public is not unwilling to pay the price. It is true that the price is often ridiculously low, far below the real value, but this is because of the bad reputation and questionable methods of dealers in such wares.

"If these dealers, and even originators, of new varieties, had not practiced deception and followed loose methods so often, a really valuable variety might be worth something more than simply enough to reimburse the dealer for foisting it upon a long suffering public. The simple fact that such things have been made merchandise of, regardless of merit, has cheated the worthy originator out of his just dues. Undoubtedly the time has come when there must be reform in methods of introducing varieties or the public must take them as the miller would uncleaned wheat or the weaver unwashed wool, at a valuation which allows for shrinkage. The public is not to blame for this depreciation, and the elder Barry was not far from right in believing that a law, similar to patent right laws, protecting new varieties, is not desirable.

"The discussion of this feature is not really germane to the subject, however, and would obscure the thoughts intended to be expressed if carried out fully. The central thought which I wish to express is that every one, including both those in and out of horticultural work is more benefitted by a general progress in horticulture than he can possibly be by the applica-

tion of his own discoveries alone. He owes it to himself, as well as others, to help the cause along. Casting bread upon the waters has a literal meaning in horticulture. Among my own acquaintances those horticultural workers who have given most have received most, and without exception, all have received more than they gave. Even those who are investigators are constantly receiving suggestions from others, and many times these suggestions are the basis of important investigations. Much more might be said along this line but the fact that investigators as well as the foremost workers in horticulture believe in horticultural free trade shows that the day for trade secrets in this art is past.

"There is one feature, however, to which I wish to call special attention. That is the fact that the masses, outside of horticultural workers, still believe that there are secrets in the trade, and this belief is used as capital by fraudulent dealers.

"Those who are ignorant of the simplest processes of propagation can be easily induced to pay high prices for peach trees budded on yellows proof stocks, or for hardy trees on Canadian stocks; apple trees worked on whole roots, old oak process etc. Claims regarding the resistant value of imported stocks and special processes of propagation so as to enable the trees sent out by 'our firm only' to resist diseases and insects, and to insure longevity, as well as early and abundant fruitfulness, have a wonderful fascination for the uninformed.

"Secrets of this kind seem to have a high market value, where they pass current, and we may well ask the question, what would be the effect if truthful claims could be made that 'our firm' is sole possessor of the knowledge of certain secret processes?

"Such a condition of affairs would truly be lamentable. It is bad enough for a portion of the community to pay tribute to a humbug, but if the claims were founded upon fact the extortion would become unbearable; we would not only be compelled to satisfy just claims, but a host of unwarranted ones far greater than now.

"Our duty as horticulturists is plain. We ought not only to show the inconsistency and absurdity of unfounded claims of those who would make capital out of pretended secrets, but we ought to stand firmly on the ground that horticultural secrets are not desirable. We ought to strive to show that a full and free interchange of ideas is the only true way to advance the art of horticulture, and that personal interests are best served when the interests of all are enhanced."

APPLE EXPORTS.

The continent of Europe will probably buy fair quantities of apples, says American Agriculturist. Hamburg advises intimate that German market will take good colored Baldwin, York Imperial, etc., beginning with November, at about 20 marks (\$4.80) per bbl. W. F. Freeman, New York representative for European houses, expresses the opinion that the United Kingdom and continent will be able this season to take 2,000,000 bbls. good apples at a substantial price, providing quality and packing are right. "Germany has very few good eating apples," he writes; "Italy a very short crop; France hardly any, while England has only about one-third of a crop." The Antwerp correspondent, F. Mann, says Belgium and other North European countries will show a good demand for American apples if prices are not driven too high.

Among Growers and Dealers.

It is reported that Neil Callister will establish a nursery on the William Stevens farm near Richland, Ia.

A. W. Brown and S. Uglow have started a nursery business at Wauertown, Wis., as the White Elm Nursery Company.

Grapes were shown in great variety by Ellwanger & Barry at the American Institute Fair in New York city September 24-26.

The dutiable imports of plants, shrubs and vines amounted to \$22,332 during July, 1901, against \$37,812 during July, 1900.

The packing house and barn of T. E. Wilson, Brighton, N. Y., was destroyed by fire on October 25. Loss, \$1,500 above insurance.

Charles Black & Son, Hightstown, N. J., had a large exhibit of apples, pears and peaches at the interstate fair at Trenton, N. J.

W. W. Perkins of Jackson & Perkins, who is in California, has shipped a carload, 45,000, rose plants from Orange, Cal., to Newark, N. Y.

Silas Wilson, Atlantic, Ia., received honorable mention from the American Pomological Society for an exhibit of McPike grapes at Buffalo.

Nelson Bogue, Batavia, N. Y., reports: "The best season in history of the nursery for sales and growth of stock. Expect to make the usual plantings."

Prof. S. J. Hunter, of the State University at Lawrence, is associated with Prof. E. A. Popenoe in the work of inspecting nurseries and orchards in Kansas.

That E. Smith & Sons, Geneva, N. Y., are growing Elberta preaches successfully was demonstrated upon receipt of samples of the fruit sent us in the season.

P. T. Hamby, W. M. Gober and George F. Gober have incorporated the Gober Nursery Company at Marietta, Ohio, with a capital stock of \$10,000 for growing nursery stock.

M. J. Wragg of J. Wragg & Sons Company, Waukegan, Ia., called upon Rochester nurserymen last month upon his way to Dansville and other points in Western New York.

The dutiable imports of plants, trees, shrubs and vines amounted to \$129,859 during the month, as compared with \$111,124 worth imported during August of the previous year.

The following, it is reported, is the result of the budding this season at Storrs & Harrison Company's, Painesville, Ohio: Peaches, 790,000; other fruit trees, 800,000; roses, 400,000; ornamentals, 50,000.

H. J. Weber & Son, nurserymen of St. Louis county, had a large display of fruit, comprising an exceedingly long list of varieties, making a very valuable collection for fruit growers to study at the St. Louis Fair.

Stark Brothers Nurseries & Orchards Company, Louisiana, Mo., have erected a large corrugated iron packing house, connecting their two main houses, covering side track. They report the largest season's sales in the history of their nurseries.

The Giles County Nursery Company has been incorporated to establish a nursery near Lynnville, Tenn. The capital stock is \$10,000 and the incorporators Robert V. Brannan, E. E. Eslick, R. O. Lamar, J. D. Towner, Frank G. McCord and E. G. Hickman.

As to the condition of apples, Indiana reports 2, Virginia 7, North Carolina 4, and Kansas 18 points above, and New York 37, Ohio 11, Pennsylvania 30, Michigan 23, Missouri 1, Illinois 27, Tennessee 2, Maine 11, and Iowa 32 points below the means of their October averages for the last six years.

The list of appropriations for the Louisiana Purchase Exposition of 1903, in St. Louis, revised to date, is as follows: By the United States Government, \$5,000,000; City of St. Louis, \$5,000,000; corporations, companies and individuals, \$5,000,000; State of Missouri, \$1,000,000; State of Illinois, \$250,000; Congress, for Government Building, \$250,000; State of Kansas, \$75,000; State of Colorado, \$50,000; State of Arkansas, \$40,000; State of Wisconsin, \$25,000; State of Pennsylvania, \$35,000; Territory of Arizona (conditional), \$30,000; Territory of New Mexico, \$20,000; Hawaii, \$15,000; total, \$16,790,000.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Robert C. Berckmans, Augusta, Ga.; vice-president, R. J. Coe, Fort Atkinson, Wis.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Legislation—C. L. Watrous, Des Moines, Ia.; Silas Wilson, Atlantic, Ia.; Charles J. Brown, Rochester, N. Y.; Howard A. Chase, Philadelphia, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. H. Dayton, Painesville, O.; Thomas B. Meehan, Germantown, Pa.

Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., NOVEMBER, 1901.

THE SEASON'S SALES.

We present reports from various points regarding the season's sales. There is a general cleaning up of stock and no good reason for cutting prices is apparent. It is expected that prices will be higher in the spring. The weather has been favorable for the most part. Sales have increased over those of last year and collections promise to be good. The reports speak for themselves and should be carefully read.

NURSERY STOCK FOR ALBANY PARKS.

Superintendent W. S. Egerton of Albany was in Rochester last month arranging for the purchase of the following nursery stock for the Albany parks: 200 American elms, 100 European lindens, 50 liquidambers, 100 Norway maples, 100 Wiers' cut-leaved maples, 100 Schwedler's maple, 100 sugar maple, 100 Oriental plane, 50 yellow wood, 50 pin oak, 50 scarlet oak, 50

macrocarpa, 100 Japanese maples in four varieties, 200 Berberis Thunbergii, 200 hybrid perpetual roses. Little & Co. bid \$755 for the order, The William H. Moon Co., \$901, and the Chase Bros. Co., \$940. Ellwanger & Barry bid \$500 and secured the contract.

CANADIAN REGULATIONS.

N. B. Colcock, custom house broker at Niagara Falls, Ont., calls attention to the fact that many nurserymen omit to place a number on their packages going to Canada, thus causing much confusion and delay at times. On October 14th four shipments arrived at that port of entry from one nursery to the same party in Canada. There were four invoices, and the officers not being experts, could not tell which was which corresponding with the shipments. They threatened to enforce the regulation by detention until a new invoice could be procured.

The following circular of information explains what is required:

Each and every case, box, cask, crate or other package coming into Canada from any foreign country, after March 1, 1899, must have a designating mark and number on the outside of said package, and that mark and number must also be on the invoice in such a manner that the examining officer can at once identify and check the contents of each individual package with the invoice.

This regulation is imperative and will, hereafter, be strictly enforced.

In a recent circular from the department at Ottawa to the customs officers of the several ports of entry, the following appears: "All imported packages, when not properly marked and numbered on the outside so as to identify the contents of each package with the corresponding marks and numbers on the invoice will be subject to detention and special customs examination after 1st March, 1899."

A PLEA FOR FRANK INTERCHANGE.

In another column of this issue is an article on secrets in horticulture. The central thought is that there ought to be no horticultural secrets, for only by a general diffusion of knowledge can there be progress.

This is a subject to which we have several times referred. It is brought forcibly to mind upon the occasion of the annual conventions of the American Association of Nurserymen. It is our opinion that were there a freer interchange of ideas as to trade matters, a practical discussion without reserve of the every day problems, the mutual benefit derived would be marked.

All who have heard the pithy remarks of Professor L. H. Bailey of Cornell University, at the conventions of the American Association cannot fail to have noted his utter frankness in all that he says and it is this very quality that makes his addresses so popular, so valuable and so thoroughly appreciated.

A large part of the discussion at the conventions is of this nature, to be sure, but there might be much more of it. What one man knows is not of less value to him because he shares it with another, as has been so well stated. Unless there is free discussion, the liberal use of a question box and a programme prepared with care and forethought, those who attend the annual conventions do not benefit by these gatherings as they should.

Opportunity should there be given for a profitable consideration of practical trade topics on a working basis. Theories

should give place to practice. Let the members generally have the benefit of the valuable information now meted out to the few in the lobby tete-a-tetes.

SEEDLING PEACH FROM CANADA.

We received last month from Stone & Wellington, Toronto, a sample of a new seedling peach which, judging from its flavor, size and general condition, should be a valuable variety. The flesh is particularly yellow, rich, juicy and very sweet. Stone & Wellington say of this peach:

"The tree has been fruiting four years in this city, and shows great hardiness, never being killed back in the slightest, although of course Toronto is out of the peach district. Ripening as it does, late, (from the 1st to the 10th of October,) and being a freestone, of yellow flesh, we consider it a valuable variety."

"We do not believe in multiplying varieties, but this one seems to us to have merits worthy of its propagation. We think very highly of the peach, and have decided to name it after one of the members of our firm, and call it 'The Wellington.'

"The peaches are smaller than usual this year, as the tree was overloaded, and not thinned out as it should have been. Last season the fruit was at least one-third larger—three peaches weighing 1½ lbs."

NURSERY INSPECTION CRITICISED.

Those who have not much acquaintance with the practical intelligence required by a good cultivator, are very much alarmed at the progress in distribution of the scale insects, or other injurious insects, by the sale of nursery plants, says Meehan's Magazine. Every good nurseryman or tree grower, who is worthy of the title of "good," perfectly understands how easy it is to destroy these insect pests, and no good nurseryman, who values his reputation, would for one moment think of distributing nursery stock with insects of this class upon it. The theoretical leaders are making great outcry against the spread of these noxious insects, and in many states they are urging legislature to have nursery stock inspected before it is sent out. That there are men who are indifferent about having clean nursery stock, is certain; but these are not among those who have been called good, intelligent nurserymen. The proper course would be to impose a fine on those who were guilty of such indifference. To this, there would be no objection; but it is the height of absurdity to employ, out of taxation, men to examine the stock of nurserymen, who sometimes know more about such matters than those who are sent to examine them.

THOMAS MEEHAN SERIOUSLY ILL.

As we go to press announcement is made of the serious illness of Thomas Meehan, of the well-known firm of Thomas Meehan & Sons, Germantown, Phila., Pa. Mr. Meehan is one of the ablest botanists of the country, a Kew man, an author of wide range and prominent in affairs in his locality. He has long been regarded as high authority in matters horticultural.

The annual meeting of the Indiana Horticultural Society will be held in Indianapolis December 5-6.

IN GENESEE VALLEY.

Heavy Retail and Wholesale Trade—Sales More Than Double Those of Last Year—Fine Weather for Digging Stock—Large Demand for Apple—With Exception of Keiffer Pear There Seems to Be no Surplus—Plum Prices Disappointing.

DANSVILLE, N. Y., Oct. 16—James M. Kennedy: "Sales for this fall will be more than double that of a year ago. The steam digger and the digger run by horses are busy every day, several cars being shipped daily. Help has never been so scarce; impossible to get enough at any price.

"We have never experienced such a fine fall for digging and shipping of nursery stock. Prices have been extremely good and the nurserymen feel confident that business will continue good for some years to come.

"The retail and catalogue trade exceeds that of last year. Judging by the orders that are coming in every day, Dansville will not carry over any surplus stock after next spring delivery.

"We are digging and shipping a large quantity of one-year stock of all kinds which will reduce the stock for another year. This goes to show that stock for next year will bring good prices. There will be planted here next spring the usual amount of stock. There is a general list of stock still for sale consisting largely of plum, cherry and apple."

ROCHESTER, N. Y., Oct. 14—Irving Rouse: "Fall sales have opened very good indeed, prices are very satisfactory and orders plenty.

"Owing to the extreme dry weather West, the East has been called on heavily to make up shortages, this is especially true of apples. Old stock in apples and pear have been thoroughly used up, and with the exception of Keiffer pear there does not seem to be a surplus of anything in the market."

ROCHESTER, N. Y., Oct. 11.—Brown Brothers Company: "The nursery business, both wholesale and retail, is at present in excellent condition, and the prospects are very bright for an unusually heavy spring trade.

"The only notable instance in which we believe there will be a shortage of stock, and consequently much higher prices, is in the case of first-class apple trees. While the apple crop is not large this year, yet there is going to be a great demand for the trees on account of the very high price of the fruit. We have had a much larger stock of apples this year than usual, but are already entirely sold out of many of the leading kinds, and the demand keeps up with great strength.

"We have been disappointed in the way in which plums sold, as we expected that they would command better prices than they have done."

A meeting of the National Organizing Commission of the National Flower Congress was held at New Britain, Conn., October 1st, to consider the subject of adopting the carnation as a national flower. The carnation was the favorite flower of President McKinley. The golden rod or columbine are favored by many. The secretary of the commission is T. L. Thomas, Forestville, Conn.

"Roses, blackberries, raspberries, and gooseberries can also be made as perfectly thornless as strawberries or apples are by the same education and individual selection," says Luther Burbank. "At present, however, the authors of new fruits and flowers are fully employed in improving the size, abundance and perfection of form, color, and fragrance in flowers and the abundance and lusciousness of fruits, otherwise the thorns would have been eliminated long ago."

SHOULD HAVE UNIFORM PRICES.

*The Sooner Leading Nurserymen of Country Come Together and
Fix a Price for the Different Grades the Better It
Will Be For All—Franklin Davis Nursery Company
Declares That It Can Be Done—No Reason
for Price Cutting This Season.*

BALTIMORE, Oct. 10.—Franklin Davis Nursery Co.: "We are just in the midst of our fall digging, and while the weather is warm, stock is in pretty good condition for handling.

"Our sales for this season are beyond our expectations, especially in the wholesale line, and we are already sold out on a great many kinds of apple, plum and peach.

"Cherries are scarce and high, and very few two-year-olds can be had. Japan plums are also scarce.

"Peaches will be scarce for spring delivery, and we look for an advance in prices. We can see some inclination with nurserymen to cut prices, and we must say that we are sorry to see it, especially when there is no occasion for it. Prices for a few seasons have been fair, and it should be our aim to keep them there.

"It is better to burn a few thousand trees and use the ashes on the poor land, then to sell them off in job lots at less than cost of production. We should have uniform prices for the different grades, and the sooner the leading nurserymen of the country come together and fix a price, the better it will be for all of us. It can be done.

"Our plantings last spring were heavy, especially in apple, peach, plum and cherry, and with a few exceptions our buds and grafts are looking well. We budded about 400,000 apple, and planted about half a million grafts. We have secured a new farm of 400 acres, adjoining us, and expect to jump on that next spring and plant about the same quantity as usual. Last spring we planted about 500 pounds of Japan pear seed and now have the finest lot of stocks we have ever grown.

"During the entire summer we had an abundance of rain and stock generally has made fine growth.

"The labor question is getting to be a serious matter with us, as with others. Hands are scarce, and cannot be had at any price."

LENGTH OF GROWING PERIOD.

F. Cranefield of the Wisconsin Experiment Station cites the following experiments:

The length of the growing period of apple, pear, cherry, and plum trees has been studied by the station for the past 2 years. The growth of the branches was determined by careful measurements of selected branches at intervals of 2 to 4 days, until no further growth in length could be observed. On the trees under observation, no increase in the growth of the pear occurred after June 1, nor the cherry after May 27. With the apple, the branch growth ceased about June 4, and with the plum June 23. Examination of several hundred other orchard trees during the following July and August showed no indications of further growth. The author points out in this connection that these observations were taken after one of the most severe winters ever known in Wisconsin.

During the season of 1900 no growth on any of the trees under observation occurred after July 10, while with the pear tree growth ceased June 18, and with the apple and plum

June 29. Other trees in the same orchard, however, continued to grow until October 1, "at which time most of the terminal buds examined appeared to be plump and fully formed." This second growth on the other trees in the orchard began about July 15, and out of 325 trees examined 66 per cent. of the trees on cultivated soil and 21.1 per cent. of those in sod made a second growth. "Several of these second-growth shoots were measured as in the previous case and were found to be growing rapidly, in some cases at the rate of $\frac{1}{2}$ in. per day."

"No second growth was found in the cherry orchard, consisting mainly of Russian varieties, nor on any native plum trees, but all of the Japan plums developed a strong second growth. . . . Many apple grafts, top-worked on orchard trees in the spring of 1900, continued to grow several weeks later than the stocks. No flowers opened at any time, showing that only leaf buds developed, and of these only terminal buds."

In connection with these experiments, observations were made to determine, "if possible, the earliest and latest date on which the bark would peel or separate from the wood readily enough to permit of budding, and if this condition prevailed continuously throughout the season; also to learn if the bark 'set' or tightened earlier on the smaller or larger branches. The method employed in the season of 1899 was to make T cuts similar to those employed in budding in branches of various sizes on trees of the various species previously mentioned. Several thousand of such cuts were made during the season, and as a result it was found that the bark could be peeled readily at any time on both large and small branches up to August 15; that after this date the bark was set on many of the smaller branches, although it could be easily peeled on the larger ones; that no difference appeared to exist between trees of different ages; that cultural conditions appeared to exert no influence; that a wide difference existed between trees of the same variety, age, and external appearance, and that the difference was often greater between different branches of one tree than between different trees."

During the season of 1900 the bark slipped readily on all branches up to September 15. After this date it was found impossible to slip the bark from branches $\frac{1}{2}$ in. or less in diameter. On the larger branches it separated easily up to about September 25, and after October 3 it appeared firmly set on all branches, both large and small alike. "From this it would appear that the time when the bark sets varies with the season, as it could be peeled one month later in 1900 than in 1899. It would also appear that it sets first on the smaller branches."

The duration of the period of root growth was determined by digging a narrow trench on May 25 about 2 ft. from the trunks of the different trees. In doing this, many roots were cut. The trenches were then filled with well-enriched earth. This earth when examined, July 10, showed that many active new roots had pushed out into the soil from the cut ends, the most extensive root growth being found with the cherry, followed in order by the plum, pear, and the apple, which had made the least growth. The new growth of roots was then cut off and the trenches refilled. An examination of the roots August 22, and again October 6, showed that in all cases good root growth had been made, although no growth of twigs had occurred on any of the trees later than July 1, as determined by a careful system of measurements.

Latest Census Returns Regarding Nurseries.

PRELIMINARY STATISTICS OF THE AREA AND VALUE OF LAND, AND THE VALUE OF BUILDINGS, IMPLEMENTS, AND LIVE STOCK, JUNE 1, 1900, AND THE PRODUCTS AND LEADING EXPENDITURES OF 1899 OF FARMS MAKING THE SALE OF TREES, SHRUBS, AND OTHER NURSERY STOCK THEIR PRINCIPAL SOURCE OF FARM INCOME, BY STATES AND TERRITORIES.

STATES.	NUMBER OF ESTABLISHMENTS.		Total Area.	Improved Area.	Value of Land and Buildings.	Value of Buildings.	Value of Implements.	Value of Live Stock.	Value of Products.	Value of Nursery Products.	Value of Other Products.	Products Fed.	EXPENDED IN 1899 FOR	
	Total.	With Buildings.											Fertilizers.	Labor.
Total.....	743	698	51,473	42,695	\$8,397,322	\$2,165,458	\$252,553	\$169,676	\$3,934,984	\$3,529,333	\$405,651	\$68,990	\$77,194	\$1,045,454
Alabama.....	22	19	5,333	3,482	179,300	54,470	6,250	3,476	131,507	125,717	5,790	1,190	2,186	30,373
Arkansas.....	47	43	4,371	3,041	101,455	46,000	8,095	6,940	129,867	119,667	10,200	2,320	125	24,940
California.....	141	134	6,689	6,065	1,755,945	210,515	36,306	18,935	528,923	457,680	70,943	4,415	8,607	158,345
Colorado.....	21	20	765	759	121,925	20,050	3,545	1,970	51,273	45,288	5,985	233	25	8,725
Connecticut.....	23	22	1,863	1,308	284,600	74,075	4,010	7,430	155,436	136,891	18,545	4,077	4,218	34,580
Delaware.....	11	10	836	812	49,900	16,450	1,155	1,690	20,195	15,125	5,070	876	960	5,065
Idaho.....	6	6	710	580	67,025	8,950	2,082	2,610	37,278	27,368	9,910	1,575	.....	6,450
Maine.....	16	16	1,254	1,014	78,400	23,600	5,740	800	47,814	38,596	9,218	450	2,430	12,630
Massachusetts.....	49	46	2,141	1,545	344,000	117,318	15,665	5,645	251,239	227,764	23,475	1,576	9,273	53,195
New Hampshire.....	8	8	427	117	32,000	17,000	1,550	330	6,509	5,424	1,083	140	445	1,555
New Jersey.....	54	52	2,932	2,622	646,475	205,450	24,145	14,661	345,328	292,153	53,175	9,670	9,835	75,885
New York.....	237	210	17,568	15,322	3,607,107	1,074,625	116,780	79,345	1,673,130	1,530,360	142,770	30,224	29,205	468,873
Pennsylvania.....	93	90	5,801	5,280	944,790	256,755	21,775	23,604	603,385	457,820	45,765	11,425	9,050	150,365
Rhode Island.....	9	9	258	251	185,300	30,000	3,200	1,660	42,070	39,950	2,120	500	703	12,103
Vermont.....	4	4	526	497	28,500	10,400	835	640	11,130	9,630	1,600	320	132	2,360

NURSERY CENSUS RETURNS.

The above statistics, relating to nursery stock in the United States, have been prepared in the agricultural division of the Census Office in Washington, D. C., under the direction of Chief Statistician L. G. Powers. It is expected that all such statistics will be completed in January or February next.

For purposes of comparison we have prepared the following table showing the number and value of nurseries as reported in the census of 1890 and that of 1900, some marked contrasts being apparent:

State.	1890.		1900.	
	Number.	Value.	Number.	Value.
Alabama.....	15	\$ 272,152	22	\$ 179,300
Arkansas.....	68	80,410	47	101,455
California.....	166	4,158,851	141	1,725,945
Colorado.....	23	106,250	21	121,925
Connecticut.....	20	146,509	23	284,600
Delaware.....	35	111,805	11	49,900
Idaho.....	8	124,000	6	67,025
Maine.....	41	180,912	16	78,400
Massachusetts.....	120	1,393,666	49	344,600
New Hampshire.....	5	8,166	8	32,000
New Jersey.....	145	1,712,464	54	646,475
New York.....	530	10,609,866	237	3,607,107
Pennsylvania.....	311	3,134,780	95	944,790
Rhode Island.....	9	36,000	9	185,300
Vermont.....	17	35,000	4	28,500

FOR SUPERINTENDENT AT ST. LOUIS.

Hon. J. A. Filcher, of California, has been recommended for superintendent of horticulture at the World's Fair at St. Louis in 1903. Of him the California Fruit Grower says:

Hon. J. A. Filcher is secretary and manager of the California State Board of Trade. He possesses a very varied and extended knowledge of

exposition requirements, having made and been in charge of a fruit and horticultural display at every large fair and exhibition held during the past fifteen or twenty years. He is a splendid organizer, having great executive ability and holding always in reserve unusual and efficient resources of an administrative character. California has no better material than the Hon. J. A. Filcher. In addition to the qualities named he is a good public speaker, is well posted on the resources of the entire country, especially in the horticultural and agricultural aspects and is honest and straightforward. He never gives an opportunity to be misunderstood.

Above all, Mr. Filcher, if made chief of the department of horticulture at the Louisiana Purchase Exposition, can be depended on to get out of the rut in which so many before him have trod. His administration of the office will be something different. He will follow to an extent, but only to an extent.

NO GYMNOCLADUS CHINENSIS TO SPARE.

In our last issue we quoted from an exchange to the effect that Professor Galloway of the United States Bureau of Plant Industry, having the direction of the distribution of forest trees next spring, had succeeded in procuring some new and rare species of ornamental trees, among them a little known Chinese Gymnocladus.

James MacPherson, Trenton, N. J., who gathered from this that these plants were for distribution, wrote to Professor Galloway for one of them and received the following reply:

WASHINGTON, D. C., Oct. 21, 1901.

Mr. James MacPherson, Trenton, N. J.:

DEAR SIR: Your recent request for plants has been referred to this bureau. It is not usual for this department to distribute those things, and at the present time we regret to say that we are not in a position to comply with your request. The notice you refer to is evidently a mistake.

Very truly yours,

B. T. GALLOWAY,
Chief of Bureau.

HARRISONS' EXTENSION.

Berlin, Md., Nurserymen Have Added Three Hundred Acres, Confirming Their Faith in Bright Prospects for Trade—Also an Extra Packing Shed—Believe in Late Digging and Matured Stock—Brisk Demand for Stock—No Excuse for Cutting Prices.

BERLIN, Md., Oct. 9.—J. G. Harrison & Sons: "We have made our first shipment of trees to-day. We do not start digging early, as we prefer to let the trees stand and let them thoroughly ripen before sending them out. We have a number of large orders booked for this fall; also for spring shipment. The demand for trees is very good, especially peach. We have a large stock of apple which are selling quite well, and the prospects are good for cleaning up.

"Kieffer pear are selling better, as the price of the fruit on the Peninsula this season is ranging from 18c. to 20c. per basket in car lots, and the prospects are that they will go to 25c. per basket. Even at this low price, this is a paying crop. We have one customer who has more Kieffer pear trees out than any other one in the state of Delaware, and will plant this fall 1,500 more Kieffer pear trees on land that cost him \$100 per acre, which shows his faith in the fruit after selling the fruit for the last ten years.

"Plum trees are selling well, from the fact that plums paid this season on the Peninsula. One of our customers, who planted four years ago 25 each—Abundance, Burbank and Satsuma; this year the 75 trees netted him \$260.00.

"Asparagus roots are in demand, as it was a paying crop the past season, as it has been for the last few years. Grapes have not paid so well, yet the season has been an exceedingly good one for growing vines and we have a stock of them. Strawberries paid quite well the past season, and the demand for plants is very good.

"Taking it as a whole, the prospect for trade is exceptionally good; in fact, confirming our faith in this, we have just purchased a three hundred acre farm that will be planted in nursery stock. We are building an extra packing shed at this time, 50 feet by 150 feet, with the railroad siding into same, so that we can handle our stock with more ease and without exposure to cold winds and sun, loading from the packing house to the car.

"Taking it as a whole, the price of stock is ranging very good, and we see no reason why there should be any cutting and slicing in prices as there is not enough stock to-day to supply the demand in most varieties of fruit trees."

WESLEY, P. O., Md., Oct. 10—Wm. M. Peters' Sons: "Trade in most all kinds of stock has been up to our expectations, and the prospects are very flattering. Especially is it the case of peach trees, of which in our opinion, there will be very few left for spring. Our shipping season does not begin much before November 1st. Apples are in not as good demand as peach. In fact that is the case with most all other kinds of stock that we handle. We think we have booked in general as many orders as we did the past season, and hope collections will be as good. See no reason why they should not be."

By recent changes in the Department of Agriculture, Prof. G. H. Powell, lately of Newark, Del., goes to the Pomology division as Assistant Pomologist succeeding W. A. Taylor, who becomes Pomologist in Charge of Field Investigations.

Obituary.

William G. Storrs, one of Painesville's most prominent and respected citizens, and owner of large interests in the Storrs & Harrison Company, of which he was vice-president and general manager, died Tuesday, October 22d, at 12:30 o'clock.

Mr Storrs was held in the highest esteem by all with whom he was associated, and his untimely death is generally deeply regretted. He was sixty-one years old, and leaves a wife and four daughters.

Mr. Storrs was born in Cortland County, N. Y., Jan. 19, 1840. In 1854 he went to Lake Co., Ohio, with his brother, the late Horatio Storrs, and his father, Jesse Storrs, who founded the Storrs & Harrison nursery. He was educated in the Painesville High school, and spent his early life there, assisting his father in the development of the new enterprise.

August 22, 1861, he enlisted in Company G., Second Ohio Cavalry, and served until Sept. 17, 1865, when he was honorably discharged. The early part of his service was in the Western Army at Fort Scott, and in the Indian Territory. He returned to Ohio in December, 1862, and recruited through the winter at Columbus. Leaving April 6, 1863, he went to Kentucky, and joined the Army of the Cumberland, operating through that state until fall, when he went with Burnside to Tennessee, being among the first to occupy Knoxville. Later engaged with Longstreet's forces in Virginia, he suffered many hardships. In April, 1864, he joined the Army of the Potomac, and in May was with Grant's Army in the battles of the Wilderness, Spottsylvania and Cold Harbor. In August, 1864, Mr. Storrs became blind with erysipelas and after much difficulty secured his removal to Cleveland, where he recovered. Then in December, 1864, he again joined his regiment, and continued in the service until the close of the war.

The marriage of Mr. Storrs and Mary E. Post, of Painesville, Ohio, was celebrated Sept. 2, 1868.

SMALLEST APPLE CROP IN YEARS.

The comprehensive reports of the American Agriculturist on the apple crop show interesting facts. The country has the smallest apple crop in years. In the Southwest, including Missouri, Kansas and Arkansas, there is a good crop, many counties reporting the largest yield in years. The commercial apple crop of the United States approximates 23,000,000 barrels, against more than double that amount last year and it is little more than one-third of the big crop of 1896.

"Many commercial orchards in Northern Ohio are a complete failure, so far as fruit suitable for shipping and storing is concerned," says the American Agriculturist, "and farmers inclined to hold for \$1 per bushel. A prominent dealer writes that it is safe to say that a stretch of land, 100 miles long, between Cleveland and Western New York, bordering Lake Erie, will show that 90 per cent. of the orchards are absolutely without No. 1 packing apples. In Central New York heavy winds in September cut the prospects, already small, and winter apples are finding ready buyers at \$3.50 per barrel for Baldwin, Greening, Russet, etc. In Monroe county buyers are paying \$2.50 to \$3.50 per barrel. In Southern Pennsylvania and in parts of Maryland and the Virginias, the showing is relatively better. Bedford and Frederick counties in Virginia secured some good York Imperials, Tompkins, etc., and

Maryland shows some Ben Davis and Grimes Golden. Pennsylvania reports include Greening and Baldwin in Center county, York Imperial, Ben Davis and Stark in Franklin, etc.

"In Northern Ontario a fair crop is being secured, but this is not the important apple section. Canadian dealers and exporters generally depend upon the district between Toronto and Kingston and northward in ordinary seasons, obtaining from this territory 200,000 barrels for storage; this year it is estimated the outturn will be not to exceed 30,000 barrels."

Late last month winter apples at wholesale were bringing \$3 and \$4.50 per barrel in Boston; \$2.75 and \$4.50 in New York; \$2.50 and \$4.25 in Chicago.

The American Agriculturist publishes the following tables:

APPLE CROPS IN BARRELS.

	1901.	1900.	1899.	1898.
Maine.....	700,000	1,900,000	930,000	1,210,000
New Hampshire..	350,000	1,930,000	1,100,000	1,604,000
Vermont.....	275,000	800,000	480,000	630,000
Massachusetts...	325,000	1,060,000	550,000	635,000
Connecticut.....	250,000	600,000	750,000	448,000
New York.....	1,500,000	6,400,000	3,100,000	2,100,000
Pennsylvania....	900,000	3,700,000	2,250,000	1,900,000
Michigan.....	1,900,000	4,300,000	3,150,000	3,750,000
Ohio.....	1,200,000	3,350,000	2,220,000	1,143,000
Indiana.....	850,000	1,580,000	2,100,000	1,400,000
Illinois.....	1,150,000	1,640,000	2,230,000	825,000
Missouri.....	2,475,000	2,200,000	2,000,000	925,000
All others.....	11,200,000	18,500,000	16,700,000	12,000,000
Total.....	23,075,000	47,960,000	37,560,000	28,570,000

	1897.	1896.	1895.	1889.
Maine.....	675,000	2,419,000	790,000	1,228,000
New Hampshire..	855,000	2,257,000	985,000	1,313,000
Vermont.....	450,000	1,072,000	550,000	505,000
Massachusetts...	630,000	1,923,000	858,000	676,000
Connecticut.....	690,000	1,244,000	785,000	798,000
New York.....	2,410,000	8,900,000	3,312,000	3,398,000
Pennsylvania....	1,966,000	6,100,000	4,990,000	3,021,000
Michigan.....	1,860,000	7,170,000	3,750,000	5,261,000
Ohio.....	2,100,000	4,715,000	5,160,000	5,515,000
Indiana.....	2,100,000	4,320,000	3,307,000	3,514,000
Illinois.....	2,900,000	4,100,000	3,792,000	3,840,000
Missouri.....	3,100,000	4,497,000	3,864,000	3,479,000
All others.....	27,700,000	20,034,000	28,400,000	24,694,000
Total.....	41,536,000	69,070,000	60,453,000	57,242,000

EXPORTS FROM UNITED STATES AND CANADA.

Season.	Liverpool.	London.	Glasgow.	Other.	Total.
1900-1....	834,358	288,424	232,703	58,422	1,413,907
1899-1900..	664,498	343,444	215,928	119,091	1,342,960
1898-9....	716,197	300,405	183,411	81,736	1,281,749
1897-8....	490,138	198,281	123,828	100,749	913,996
1896-7....	1,581,560	716,771	411,575	209,940	2,919,846
1895-6....	410,596	196,184	127,942	16,533	751,255
1894-5....	853,198	388,535	173,312	23,110	1,438,155
1893-4....	101,205	32,581	38,524	2,530	174,841
1892-3....	798,291	174,405	220,790	10,052	1,208,538
1891-2....	917,535	224,356	282,553	25,892	1,450,336
1890-1....	252,548	116,705	80,772	1,260	451,285
1889-90....	418,850	128,248	116,449	14,115	667,762
1888-9....	790,502	279,374	272,068	64,465	1,407,409
1887-8....	346,557	104,072	139,517	18,275	608,421
1886-7....	468,553	187,840	138,756	12,775	807,924
1885-6....	537,695	147,102	176,445	24,631	885,273
1884-5....	491,898	123,081	137,631	16,590	769,210
1883-4....	46,661	4,843	29,685	343	81,532
1882-3....	253,432	46,975	81,269	13,318	395,594
1881-2....	133,784	46,147	59,266	55	239,252
1880-1....	839,444	144,936	216,391	95,036	1,328,806

FOREST TREE PLANTING.

William L. Hall, superintendent of tree planting in the Bureau of Forestry, has just completed an examination of 15,000 acres of "cutover" white pine land in Wisconsin, says the Forester, a monthly magazine published by the American Forestry Association, of which Secretary of Agriculture James Wilson is president. The tract is the property of the Bay Shore Lumber Company of Chicago, and is located in Forest county. The land was cut over about fifteen years ago and left idle, meantime growing up in birch, red cherry, alder and aspen. An examination of this tract was requested of the Bureau of Forestry, by the owners, in order to determine if replanting would be feasible. Mr. Hall will recommend experimental planting of white pine on a small section of forty acres to test what can be done.

A forest plantation 4,100 acres in extent is to be started in the Kankakee bottoms, Newton county, Indiana. The land, which is the property of Joseph Adams, of Chicago, was recently examined by George L. Clothier, an agent of the Bureau of Forestry, and W. H. Freeman, secretary of the Indiana State Board of Forestry. The examination was made in order to determine upon plans for the planting. The object in starting this plantation is to establish a permanent forest, and it marks the first attempt in Indiana at tree planting on the advice of a trained forester.

Recent Publications.

An attractive catalogue has been issued by the P. J. Berckmans Co., Augusta, Ga.

A bulletin on fine apple growing has been issued by the United States Department of Agriculture.

The publishers of the Youth's Companion offer special inducements for subscribing for that weekly now.

Recent important bulletins by the United States Department of Agriculture are: "Some Miscellaneous Results of the Work of the Division of Entomology," by L. O. Howard; "Insect Enemies of the Spruce in the Northeast," by A. D. Hopkins, Ph. D.; "Wages of Farm Labor in the United States," by John Hyde, statistician; "Prunes and Prune Culture in Western Europe," by Edward R. Lake; "Rates for Transportation of Garden Truck;" "Agricultural Conditions on the Pacific Coast;" Experiment Station Record, Vol. XIII, No. 2; Vol. XII, No. 12.

"Best Value in Hardy Trees and Plants" is the title of a new catalogue issued by Thomas Meehan & Sons, Germantown, Phila., Pa. It is popular because it not only gives the common names of the plants they are offering, but it tells just what size a buyer may expect for a certain price as well. It quotes prices for quantities also. In these ways it is different from many of the same class. This catalogue is full of information on tree planting and pruning, and contains many helpful hints and useful suggestions, of value to tree planters and owners. It is condensed, accurate, and would be of great help in making selections.

The new catalogue of the Franklin Davis Nursery Co., Baltimore, Md., bears upon its front cover an excellent likeness of the founder of this nursery, Franklin Davis, who died October 13, 1895. A sketch of Mr. Davis is in the catalogue. The following advice is given in the introduction of the catalogue: "A change has taken place in the labor system of the Southern States, and with it comes a change in the pursuits of many of their people. Many are looking about undecided as to what they shall undertake. We believe that fruit growing offers greater inducements than anything else. Under this conviction we have gone largely into the business ourselves, and say to others, 'Go and do likewise;' and if you give it proper attention, we will guarantee satisfactory returns." The book is a valuable guide to varieties of fruits and flowers, profusely illustrated.

THE NEXT GREAT FAIR.

*Agricultural Building to be the Largest Building Ever Constructed
Dedicated to This Great Industry—More Than a Mile
Around It—Important Features of the Louisiana Purchase
Exposition at St. Louis in 1903.*

Agriculture, by which the great Louisiana Purchase was developed, will receive the highest compliment which the World's Fair at St. Louis can bestow. To this greatest of industries the greatest of all buildings ever constructed for any purpose will be dedicated. The Agricultural Building for the Louisiana Purchase Exposition will be 2,000 feet long and 700 feet wide, containing an area of 1,400,000 square feet, or about 32 acres. Any person can best realize what these dimensions mean by finding a field of 32 acres and walking around or across it. Any man living in a city may compare it with the area of 320 city lots of 30 feet frontage, each 114 feet deep on a 66 foot street, and including streets. Allowing 20 lots to a square, the squares being 300x228 feet, it would be equal to 16 city squares or blocks, an area of two blocks in one direction and eight blocks the other, all under one great roof. Allowing two square feet for each person, 700,000 people could stand under this roof. An army of 50,000 men could assemble and go through its evolutions with freedom within this space. Its outside walls will measure 120 feet more than a mile. A good walker could encircle it in twenty minutes. The fast flyers of our best railroads would require a full minute to cover the distance. The Mississippi River flows an equal distance in about twenty minutes. It will contain about 100,000,000 cubic feet of space, and the area of the floor space is sufficient for 4,666 exhibitors, allowing to each a space of 10x20 feet, and a space of 10x10 to the center of the aisle, or 300 square feet in all.

The Division of Agriculture will be the most complete and comprehensive ever presented, treating broadly of the science and principles of agriculture, farms, buildings, tools and machinery, the culture of cereals, grasses and forage plants, the culture of tobacco and textile plants, the vine and its products, economic horticulture, having special reference to vegetables and fruits, recreative horticulture, including landscape gardening, floriculture and window gardening, domesticated animals, stock raising, the dairy industry, wool growing and the minor animal industries.

Enlarging upon these subdivisions of the subject it may be stated that the agricultural division will treat of the agriculture of the past and of other countries, the agriculture of the Indians and of frontier and ranch life. The Experiment Station is a modern institution of great influence and will have a prominent place here for the display of agricultural geology, physics, chemistry and biology, physiology of plant and animal life, and meteorology. Soils will be classified by their characters and by regions, systems of tillage and the rotation of crops will be shown, drainage and irrigation systems will be illustrated and the subject of fertilizers and their application will be treated in a way to be understood by the inquirer. Agriculture and its relation to stock raising constitutes another attractive branch of the subject.

The section of viticulture will treat of the natural history of the vine, collections of vines and illustrations of varieties, systems of vine culture and training, grape raising for the

fruit market, the raisin industry as carried on in California and other countries of the world. The process of making wine, champagne, brandy and other products of the grape, showing the construction of wine cellars, vaults, vats and machinery used in the industry.

Horticulture naturally divides itself into two sections, the first that of growing vegetables and fruits, the second that of ornamental or recreative horticulture. The first of these may be again divided into garden economics and pomology. The exhibits relating to the first will include soils and fertilizers, and the principles of gardening, tools and appliances as distinguished from those of agriculture, species of vegetables and specimens of cultivation, plans and drawings of hot houses, methods of heating, etc. Pomology will treat of all the tree fruits, as well as strawberries, melons, pineapples, bananas, and nuts of all kinds. To this may be added seed raising, methods and appliances, the fruit market and statistics of trade. The section devoted to ornamental horticulture will include pictures representing gardening of the past and present, the Dutch formal gardening, Japanese miniature gardening, and examples of the curious and beautiful in the art of gardening, with specimens of plants and their cultivation. Modern landscape gardening will be shown by photographs, plans and drawings, bedding plants, ornamental bulbs, hardy perennials, shrubbery, roses, shade and ornamental trees, the window and roof garden, house plants, fern culture, the lawn and its care, the pleasure conservatory, orchid culture, propagating houses, flower markets and the flower and seed trade.

Besides the great building devoted to agriculture there will be the vast area of live stock buildings, the outdoor horticulture exhibits, and other extensive special displays housed in special buildings, or having a special location out of doors.

McKINLEY MEMORIAL TREES.

Mrs. O. D. Baldwin, of this city, whose family has associations connected with the planting of the famous Charter Oak, which was, until some years ago, a conspicuous landmark near Hartford, Conn., suggests that a tree might be planted in this city to serve as a living memorial to President McKinley. The suggestion is a good one. If the ceremony of planting could be performed under the auspices of the public schools such an event would doubtless leave a lasting impression on the minds of the children. In fact, the suggestion is good enough to be taken up by every school department throughout the land.—San Francisco Chronicle.

Long and Short.

Elberta peach trees are offered by the Emporia Nurseries, Emporia, Virginia.

An assistant foreman is wanted by the Giles County Nursery Company, Lynnville, Tenn.

Apple trees, cherry trees and forestry trees, all sizes, and grafts made to order at A. L. Brooke's nursery, North Topeka, Kansas.

A list of special surplus at bargain prices is quoted in another column by Jackson & Perkins Company, Newark, N. Y.

A scene showing the digging of Nebraska northern grown apple seedlings is given on another page of this issue. J. A. Gage, Beatrice, Neb., has apple seedlings, Kieffer pear seedlings, cherry trees, one and two year, mulberry, black locust, ash, Osage seedlings, asparagus and rhubarb. He guarantees seedlings to be up to the best standard grades

WHEN PURCHASING STOCK.

The Franklin Davis Nursery Co., of Baltimore, say: "There are three considerations that claim the attention of purchasers of nursery stock: First, it is of the greatest importance to procure a fine article, true to name. Secondly, it is of vital importance to secure good, healthy stock, for without a healthy plant to begin with, we have but a poor chance of success; one healthy stock is worth a dozen sickly ones. Thirdly, success often depends on careful packing; without it thousands of dollars' worth of trees are annually lost."

FOR THOROUGH FUMIGATION.

E. Dwight Sanderson, of the Delaware Experiment Station, calls attention in the Rural New Yorker to some results in the matter of fumigating nursery stock. "Until recently," he says, "almost all fumigation houses have been built with solid floors, and the gas generated from a vessel placed in the center of the room. Where the house is so constructed that a load of trees can be brought in and left on the wagon, a vessel can be readily placed under it in the center of the room, but where the trees are unloaded and packed in the room, it is inconvenient to leave a place in the center for the generator, and, as a matter of fact, I suspect—basing my suspicions upon observation and information from nurserymen—that but few of them do so, but merely leave a space near one corner near the door, and there place the generator. It is true that in a fumigation house packed full or partly full of trees the gas surrounding them would be much stronger than were the same amount generated in the same space empty, so that the manner of diffusion of the gas of a given strength in an empty room would not necessarily apply to it when full of trees. But on the other hand, it must be evident that the diffusion of gas will be much slower where the currents of gas and air are impeded by the room being packed full of trees, so that these two considerations more or less balance each other. It must be evident then that if the gas generated in one corner of a room requires 37 minutes to kill a guinea pig, it will not kill the San Jose scale, or other scale insects, which are much harder to kill, in 30 minutes, which is the time often allowed by nurserymen when rushed, and it is exceedingly doubtful whether it would be so under such conditions in 45 minutes.

"Professor Webster was the first, I believe, to note the possibility of incomplete diffusion on a solid floor and recommended the use of a slat floor, on which to place the trees, and devised an apparatus for dumping the cyanide into the generator placed under the center of this slat floor. Recently Professor Johnson has also recommended the use of a slat floor. The utility of this arrangement is readily seen from the above account of the poor diffusion of the gas when the generator is placed on a solid floor in the corner. Professor Webster informs me that most of the fumigation houses in Ohio are so made, and certainly all new houses should be so constructed to insure proper distribution of the gas. Indeed, old houses might be easily fitted with a slat floor above the present one, merely leaving room enough for the generator."

Mr. Sanderson has devised a hood and tubes extending from it so as to send the gas into the fumigating room from eight apertures at as many points under the slat floor.

APPLE TREES.

150,000 fine two year old trees.

CHERRY TREES.

20,000 very fine one year and two year old trees.

KEIFFER PEAR TREES.

APPLE SEEDLINGS, JAPAN AND FRENCH PEAR SEEDLINGS.

FORESTRY TREES, ALL SIZES.

GRAFTS MADE TO ORDER.

All orders put up separate.

Write for Prices.

A. L. BROOKE,
NORTH TOPEKA, - KANSAS.

CALIFORNIA PRIVET.

Two years, extra bushy plants, 2 to 3 ft.; one year, strong, and two year, 15 in. to 2 ft. All are well branched.

Osage Orange, in quantity, low prices, one and two years.
Seckle, Keiffer and Bartlett Pears, fine two and three years.
Lombardy Poplar, 6 ft., fine; also 10 ft. and 14 ft.
Carolina Poplar, 6 ft., 7 ft., 8, 10 and 14 ft.
Norway Maples, 4 ft., 6 ft., 8 ft., 9 ft., 10 and 11 ft., stocky.

JOSIAH A. ROBERTS, - Malvern, Pa.

CHARLES DETRICHÉ, Senior,

ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.

Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers.

WANTED

by the Giles County Nursery Co., Lynnville, Tenn., an assistant foreman. Reference required. Address

Giles County Nursery Co., Lynnville, Tenn.

Elberta Peach Trees

1 yr. 3 to 6 ft., by 100 and 1000 for sale, and 500 2 to 2½ feet.

HICKS and BLACK ENGLISH MULBERRY—1 yr. 4 to 5 ft., by 100. 3 yr. late AP-LES, mostly Winesap and York Imperial, 5 to 7 feet, by 100 and 1000. Name price you will give Address

EMPORIA NURSERIES, - - Emporia, Va.

Largest Grower in America of

Grape Vines

Other Specialties :
CURRANTS and GOOSEBERRIES

Introducer of
CAMPBELL'S EARLY GRAPE
JOSSELYN GOOSEBERRY
FAY CURRANT

Over 22 years with no change
in ownership or management

Our main business is the growing of unusually high grade stock suitable for the proper filling of Nurserymen's Retail Orders. There being no uniform standard for grading above kind of stock every grower of the same is at perfect liberty to adopt his own ideas for growing and grading, and alter the same as often as he sees fit.

Prices reasonable but not always lower than are generally quoted for light rooted stock.

Please send us your list of wants

GEO. S. JOSSELYN,
FREDONIA, N. Y.

Apple Trees

Large supply. Fine 2 yr. old trees.

Kieffer Pear Trees

Unusual fine lot of two yr. old trees—all grades.

Japan Pear Seedlings

Fine block. No. 1 stocks—all grades.

Apple Seedlings

Well grown. High grades.

WRITE FOR PRICES.

F. W. WATSON & CO.
TOPEKA, KANSAS.

When writing to Advertisers mention The National Nurseryman.

Xenia Star Nurseries

We have for Fall and Spring a
Complete General Line of Stock

all of a superior quality, smooth bodies, and with the abundance of fibrous roots for which trees grown in this locality are already becoming famous. We grow for the wholesale trade—that is our business. We understand its requirements, we strive to please, and guarantee a satisfactory deal.

Give us an estimate of your probable wants; we will make you a *special offer*, which may save you money.

Our Special Lines are as follows :

- Apple** 2 and 3 year grafts and buds. These apples are a choice lot. Fine, well rooted trees, not excelled anywhere, moreover, they ripen up early and will be in good condition for early shipments.
- Pear** All the leading sorts, including Kieffer, in both Standard and Dwarf. Very fine trees.
- Cherry** We have the largest block of 2 year cherry (now so scarce) growing in the United States, and they are also the best. This is not vain boasting—they are unequalled. We mean what we say. The trees are here to prove it.
- Plum** European, Japan and native kinds in general assortment on plum and peach roots.
- Peach** We have fifty-one varieties, including all the leading and best newer kinds. Full assortment in all grades.

We will have our usual supply of other stock, including Quince, Apricot, Grape, Small Fruits and Ornamental Trees, Shrubs. Vines and **APPLE SEEDLINGS**.

McNARY & GAINES,

XENIA, OHIO

I OFFER THIS FALL

BARGAINS

IN

- Norway Maples,
- Magnolia Acuminata, 10 to 12 ft.
- Oriental Buttonwood,
- Carolina Poplars,
- American Lindens.
- Osage Orange, 2 years,
- American Arbor Vitas, 3 to 4 ft.
- Irish Junipers, 3 to 4 ft.
- Norway Spruce, 2 to 4 ft.
- Japan Snowball,
- 2 to 3 ft.

Besides a full line of Fruit Trees and other Trees and Shrubs.

GEORGE ACHELIS,
MORRIS NURSERIES,
WEST CHESTER, Chester County, PA.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"We may well plant a tree for the love of the planting, if not for posterity."—PROF. BAILEY.

Vol. IX.

ROCHESTER, N. Y., DECEMBER, 1901.

No. 12.

MILLIONS OF ELBERTAS.

Boom in the Peach Industry in the South—Stock Selling at Sharp Advance—Nurserymen Caught Short—Price of Land Greatly Increased—Demand for 140,000 Trees in a Single Mail Order—Plans for Next Year.

A despatch from Rome, Ga., reads: "Entomologist Scott of this state reports that there will be fully three million new peach trees planted in Georgia this winter, fully one-half coming to this section. The trees are selling now at four to five cents against one to two cents in ordinary seasons, and the nurserymen have been caught short. In some cases large growers took orders not expecting such a rush. Now they are unable to get the stock and buyers will bring suit against them. The 1901 season, all around, brought such fine results that the peach industry is undergoing a wonderful boom and the people have gone wild over the peach orchard proposition. Wherever a man could get a few acres he has set out an orchard."

Mr. Scott in speaking of the outlook says: "The planting will be done about December 1, and the people who propose to put out orchards ought to post themselves on the care of trees and how to plant them. There are many of them to whom this is an entirely new proposition, and unless they are careful they will lose their trees. The planting of so many orchards will make work for the entomological department, but we will gladly do whatever we can to aid in the work, and are ready to furnish information to any who may desire it. In my opinion a great mistake is going to be made in the planting of so many Elbertas. The great majority of the trees purchased this year have been of this variety. These peaches all come on at the same time, and with so many Elberta orchards the market is likely to become glutted and the results may not be so good as are expected. It would have been far better if more of the other varieties had been mixed in with them. But it looks as if everybody wanted the Elberta, and that is the kind they have been buying."

The Atlanta Constitution reports that "it looks now as though in a few years Floyd, Chatanooga, Bartow and Walker counties will be a veritable wilderness of peach orchards. Many thousands of trees will be planted this fall. One firm of nurserymen in Georgia received in one mail recently orders for 140,000 trees, and other nurserymen report that they cannot supply all the orders sent them. Only a few fear overproduction. It is contended that the abandoning of the peach business in South Georgia makes North Georgia the natural and logical peach-producing area."

Ten years ago, says the Atlanta Journal, the hills and table lands now covered with orchards of luscious Elbertas and other peaches were uncultivated. Few farmers took the trouble to clear the rocky ledges, and the land could be bought

for \$1 to \$5 an acre. Now, unimproved woodland sells from \$20 to \$25 an acre, and cleared land for \$50 and upward. Orchards in bearing can scarcely be bought at reasonable prices. In some recent sales the average cost per tree equaled the former price of an acre of land. Within seven miles of Adairsville there are 3,000,000 peach trees, not all in bearing. In the past year a grower cleared \$5,500 from 1,300 trees on less than ten acres of land. The first orchard for supplying northern markets was planted 11 years ago. One man will set 40,000 trees next year. The bulk of the crop ripens just when farm crops are "laid by." Instead of being idle, as heretofore, all hands go into the orchards, and are paid 75c. to \$2 a day. Some families lay by \$100, enough to keep them in food for half a year. The fruit crop gives a strong impetus to business in all its relations.

MOUNT ARBOR NURSERIES.

The Mount Arbor Nurseries, Shenandoah, Iowa, E. S. Welch, proprietor, has added a third large storage building this fall. It is 102 x 106 ft.; 12 ft. high on the sides. A cupola 18 ft. wide and 5 ft. high extends the full length, for light and ventilation. The material used in construction is brick for the foundation, and wood and paper for walls and roof, with double air spaces. The building is also lighted with electricity, and is well arranged for handling stock and boxing orders throughout the winter months. A side track along the full length of the building makes shipping convenient over both the Wabash line and the Burlington route. The Mount Arbor Nurseries is one of the large concerns of the country, enjoying a good trade, and finely equipped for dispatching business.

TRANSLATED INTO THREE LANGUAGES.

"The New Horticulture," by H. M. Stringfellow, has been translated into German by Mr. Wannick, of Austria, to whom Mr. Stringfellow gave away the European copyright, says the Practical Fruit Grower. Mr. Wannick last winter got out an edition of two thousand copies, which was sold in two months, and is now on the second edition. The book is also being translated into French and Bohemian. In this country it should be more widely read than it is. Its sale here has been probably forestalled by the author's frequent contributions to the horticultural press, for which he has never asked a cent, and many people have concluded that he has told all there is in the book. Mr. Stringfellow's object in writing "The New Horticulture" was to spread the truth and not to make money. As an evidence of this fact we will say that he has given away both the European and American copyrights, besides the plates and 1,000 paper covered copies of the book.

INSPECTION IN CALIFORNIA.

Until recently the importation of plants by mail proceeded freely without inspection, says the Rural Californian. The quarantine system could not be perfect while there was a chance of shipping infected stock through the mails, and in view of the American occupation of the Hawaiian and Philippine islands, and the heavy mail now passing between California and those islands, there was a constant danger that some of the very many pests with which they are infested, and from which we are free, might find their way into our state in this manner.

The State Board of Horticulture brought the matter to the attention of the postmaster general, and it has been arranged that all mail matter containing fruit or plants from Hawaii or the Philippines is sent to the postmaster at the capital of each of the Pacific coast states and by him submitted for examination to the State Board of Horticulture. All such packages when found to contain no dangerous insects are promptly forwarded to the addressee. When any package contains infected fruit or plants the postmaster notifies the addressee and detains the same until the state board or the commissioner can arrange with the addressee, or take such other proceeding as may be proper for the destruction thereof.

All this work is constantly going on so quietly and systematically that only those who are touched by it are aware of its progress, and yet it stands a stalwart safeguard for the protection of our growing plants against new destructive agencies.

FREE DISTRIBUTION OF TREES.

The Secretary of Agriculture, Hon. James Wilson, makes this statement regarding a topic of special interest to nurserymen:

It has long been my belief that much good might be accomplished by using a part of the appropriation in a judicious dissemination of some of the more valuable trees. Plans have therefore been made to place at the disposal of each senator, member, and delegate in Congress a limited number of selected trees, the object being to encourage a love for tree planting and all that this work involves. It will, of course, be entirely beyond the scope of the Department to send a large number of trees to any one place, but it is believed that the action contemplated will eventually lead to extensive planting through the educational effects of the work. Commercial establishments are well prepared to supply trees in nearly all parts of the country at reasonable cost, and the plan of our work will, it is believed, eventually advance their interests. Already there has been secured for distribution a choice collection of nut trees, principally pecan, and these are being grown by the Department from nuts gathered from selected trees in all parts of the country.

It is believed that some such plan as outlined for the distribution of the special crops mentioned above can be applied also to the general distribution of vegetable and flower seeds. It will certainly be an advantage to intelligently district the country and send into each district only such seeds as are likely to improve its conditions. This will obviate the necessity of having to secure such immense quantities of single varieties, a task which is often difficult to

perform. It will furthermore enable the Department to gradually introduce into the distribution rarer sorts, and to drop these after the first year or two, leaving the demand for them to be supplied by the trade. When the Department has secured the seeds and plants which it is believed are best adapted to certain districts, its responsibility, to a certain extent, ends, as it looks to senators and members of Congress to place them in the hands of such of their constituents as in their judgment will make the best use of them. Due notice, however, will always be given of every special distribution, and in addition all information that the department possesses will be furnished, so that the recipients may act intelligently in handling whatever may be sent out. Carrying out the work as here outlined it is believed will result in good to the entire country, as is the intent of the existing law.

PAN-AMERICAN AWARDS.

Awards in the floricultural department of the Pan-American Exposition have been made. Among nurserymen who received prizes are the following:

Ellwanger & Barry, Rochester, N. Y.—Gold medal for roses; silver medal for peonies and dahlias; bronze medal for hardy roses; honorable mention for phlox.

Thomas Meehan & Sons, Germantown, Pa.—Gold medal for shrubs; bronze medal for clematis paniculata.

Nelson Bogue, Batavia, N. Y.—Gold medal for H.P. roses.

George C. Roeding, Fresno, Cal.—Gold medal for *Araucaria Bidwellii*; silver medal for palms and decorative plants; honorable mention for cannas.

Jackson & Perkins Co., Newark, N. Y.—Silver medal for Dorothy Perkins rose; honorable mention for hybrid perpetual roses.

W. & T. Smith Co., Geneva, N. Y.—Silver medal for peonies.

John Charlton, Rochester, N. Y.—Silver medal for peonies.

Bobbink & Atkins, Rutherford, N. J.—Silver medal for shrubs.

The E. G. Hill Co., Richmond, Ind.—Silver medal for geraniums.

James Vick's Sons, Rochester, N. Y.—Bronze medal for tulips; honorable mention for geraniums, salvias, petunias and carpet bed.

The W. H. Moon Co., Morrisville, Pa.—Honorable mention for evergreens.

QUESTION OF CHERRY PLANTING.

In an article in the Central Farmer, E. F. Stephens, Crete, Neb., says:

We now believe that commercial orcharding with the cherry will not be nearly as profitable during the coming ten years as it has been during the last twenty. The cherry is so easily grown and fruits at such an early age that it is not difficult to overstock the market, and at this moment we are inclined to wish that one-half of the 3,000 cherry in commercial orchards were in apple, peach or plum.

During the last five years we think the majority of planters in many Nebraska districts have planted almost as many cherry trees as apple trees. And that when all these trees come into bearing, those who do not have an excellent local market may find it difficult to sell all the fruit at a profit. We have in mind a cherry orchard in the central portion of the state containing 5,500 trees, and we know of a large number of orchards containing from 500 to 1,000 trees.

The fruit of the cherry must be marketed in a few days, and will not stand shipment to any great distance. The fruit of the apple, on the other hand, can be kept for long periods, and has more nearly a universal demand.

As long as cherries like the Early Richmond, Montmorency and English Morello can be sold freely, that is, from \$1.25 to \$1.50 per bushel, there is good profit; but when they drop to \$1 a bushel or below there are better returns in raising other kinds of fruit.

SECRETARY'S WILSON'S REPORT.

In his annual report the Secretary of the U. S. Department of Agriculture says :

For several years the department has been working to secure, by breeding, a race of oranges resistant to frost. It was proposed by this means to restore the orange groves of Florida, which formerly produced several million dollars' worth of oranges yearly, but were nearly all destroyed by cold a few years ago. Twelve of the new evergreen hybrid oranges, secured as a result of crossing the hardy Japanese form with the Florida sweet orange, have proved to be the hardiest evergreen oranges known in the world. Southern nurserymen have pronounced them to be of great value as hedge plants, entirely apart from their fruit-bearing value. There is great promise, however, that we will ultimately secure a fruit that is hardy and of good quality. Some of the hybrid raisin grapes, produced with a view of securing resistance to a disease known as "coulure" or dropping of the fruit, have borne for the first time. These vines have proved hardy so far and have produced fruit of remarkably fine quality. Some of the vines appear to be resistant to a serious and destructive root disease which has appeared in California, and they may resist the worst of all Pacific coast grape diseases—the so-called "California vine disease."

POMOLOGICAL INVESTIGATIONS.

The fruit interests of this country have grown to enormous proportions, and the pomological work of the department is designed to promote them in every way possible. With this end in view, a large exhibit was last year maintained at the Paris Exhibition, the object being chiefly to encourage a demand for American products. The beneficial effects of this work are already showing in the increased demand for American fruits, especially oranges and apples. In 1899 the United States exported 380,222 barrels of apples, valued at \$1,210,459. In 1900 526,636 barrels were exported, valued at \$1,446,555. Already in 1901 855,973 barrels have been exported, valued at \$2,058,964. The value of the oranges exported in 1901 is double that of 1900, all of which can largely be traced to the interest aroused by the work at Paris.

EXTENSION OF FRUIT MARKETS.

In order to open up additional markets for our fruit and to bring about better methods of harvesting, packing, storing and shipping the same, a small fund was secured for the present fiscal year, and the results accomplished with this encourage the belief that there are great possibilities for trade in American fruit abroad. Trial shipments of pears, peaches, and other fruits have been inaugurated with such encouraging results that it is believed the work will be undertaken next year on a commercial scale by private interests. With the unrivaled facilities America possesses for growing the finest fruits, and with a clear understanding as to the proper methods of handling, there is no reason why a fine foreign trade should not be developed.

THE PRUNE INDUSTRY.

The prune industry of the Western States has grown to large proportions, but in order to compete with foreign trade the need has long been felt for a better knowledge of methods of growing and handling the crop and the best varieties to plant. By arrangement between the pomologist and botanist an agent was sent during the year to France to study the prune industry there. The work of this agent resulted in the discovery and introduction of several important varieties that promise to be of value in the Pacific Northwest.

EUROPEAN GRAPES IN THE SOUTH.

The United States imports every year large quantities of European grapes, which are sold mostly for table use. It was believed that some of these varieties could be grown in the South, and to test the matter a number of plantings were made there three years ago. These grapes fruited one year ago, and the indications are that some of the varieties will be found valuable for our markets.

Under the new arrangement through which the experimental gardens and grounds become a part of the Bureau of Plant Industry, plans have been made for using them in connection with nearly all lines of work. The greenhouses and conservatories prove valuable for the

propagation of many useful plants secured by the agricultural explorers and others.

PLANTS FROM FOREIGN COUNTRIES.

The act of Congress establishing the Department of Agriculture specifically provides for the introduction and dissemination of rare and valuable seeds. More or less of this work has been carried on for forty years, but recognizing the needs for enlarged and systematic efforts along this line, steps were taken three years ago which led to a great increase in the department's opportunities in this direction. Briefly stated, the object of this work is to encourage the building up of home industries and thus save the American people large amounts annually sent abroad. With our vast resources and variety of climate and soil, and a people who are never daunted by the difficulty of an undertaking, the possibilities of developing new fields seem unlimited. In probably no branch of the department's work can the practical value of its efforts be more quickly shown than in this line.

SUPERINTENDENT AT ST. LOUIS.

Frederic W. Taylor, superintendent of horticulture, forestry, foods and food products of the Pan-American Exposition, arrived in the city yesterday to complete negotiations with the executive committee of the World's Fair relative to his appointment as chief of one of the departments of the Louisiana Purchase Exposition, says the St. Louis Globe-Democrat. Mr. Taylor has been mentioned in connection with the department of agriculture, and it is likely that his appointment as its chief will be announced to-day. He was in conference yesterday with Director of Exhibits Skiff and with President Francis, and he spent some time at the headquarters in the Laclede Building. Mr. Taylor's name has been mentioned also in connection with the directorship of concessions, which place he held at the Pan-American, but exhibit work is more in the line of his profession, and it is likely that this will be his lot in the St. Louis Fair.

Mr. Taylor is a born horticulturist and nurseryman. His father was a pioneer in that line in Iowa, and his son was trained and educated for the profession from childhood. He established himself as a practical nurseryman in Nebraska, and his learning and ability received recognition there by a call in 1891 to the professorship of horticulture at the State University. He developed his work as an educator through university extension, farmers' institutes and similar modes of instruction for a number of years. When the Omaha Exposition was organized Mr. Taylor was the first superintendent selected, and he was placed in charge of agriculture, horticulture and forestry. His work in these departments at Omaha led to his selection for one of the earliest appointments at the Pan-American Exposition, and his success there is shown in this invitation to St. Louis.

Mr. Taylor's experience in his profession as an exposition man has been broadened by several trips to Europe, whither he went in the line of his work. He was sent abroad several times by the government for scientific pomological study, and a part of his duty at Buffalo carried him to the Paris Exposition to make special study of some of its features for the benefit of the exposition. He is still a young man, having been born in 1860, and he comes to St. Louis full of energy and zeal for his profession.

W. T. MITCHELL & SON, BEVERLY, OHIO, Nov. 16, 1901: "Find enclosed one dollar for which please send me your paper one year, commencing with November number. We could not do without it, Wishing you a prosperous year."

THOMAS MEEHAN.

Death of One of the Foremost Horticulturists and Botanists of the Country—Contributed Many Articles to Scientific Publications—First to Flower Victoria Regia in This Country—English Comment on His Life Work.

A despatch to the New York Times from Philadelphia under date of November 19th, says:

Thomas Meehan, one of the foremost horticulturists and botanists in this country, died at his home in Germantown to-night after a lingering illness, aged seventy-five years.

He contributed thousands of scientific publications on the subjects of his life's work and was the first botanist to succeed in flowering the Victoria Regia in this country.

He was born in England, and was at one time head gardener to Col. Vernon Harcourt, at St. Claire, Isle of Wight, where Queen Victoria spent her honeymoon. He came to this country in 1848. He was a member of the Councils from 1882 until the time of his death.

Last April the NATIONAL NURSERYMAN published a two column sketch of Mr. Meehan and his picture. In June the Gardeners' Chronicle, of London, England, published a long sketch of Mr. Meehan from which the following is taken:

Edward (Edmond) Meehan, the father of Thomas Meehan, was of an old family of landed proprietors and merchants of Carrick-on-Sulr, Ireland. His father dying when the boy was young, he was cared for by a maternal uncle, and finally apprenticed to a gardener in the establishment of the Lord Lieutenant of Ireland at Dublin. When out of the term he went to the famous nursery of Watson at St. Albans, and when still young was engaged as gardener to Admiral Byng, M. P. While there he married Sarah Denham, of an old family of Potter's Bar, and with a considerable united capital engaged in a fruit, vegetable and provision business at Regent's Park. The "good will" that they had been induced to buy proved a myth. He returned to his original profession, to Bunney's Nursery at Ball's Pond, Islington, and soon after went with his family of wife and two children as gardener to John Young, Esq., on his large estate at Westbridge, in the Isle of Wight. Here he erected the first house for the growth of pine-apples in the Isle of Wight.

At the age of 17 Thomas Meehan became a gardener and at 19 entered the great gardens at Kew, England. While at Kew he became intimate with John Murray who afterwards came to America and became a popular Unitarian minister. Mr. Murray had found a starting point with Robert Buist, the famous Philadelphia nurseryman of that time. A letter to Mr. Buist brought the promise of aid to Mr. Meehan also in the future.

After serving two full years at Kew, he found employment in the nursery of Bridgewater Page, of Southampton. After a short time here, through the favor of Lady Catherine Vernon Harcourt, he was engaged as gardener to the Earl of Hardwicke at Sidney Lodge.

Here again he found good friends, and the earl and countess, before starting on a long voyage in the Vanguard, the earl being first lord of the admiralty, arranged that on his return (Donn) the aged gardener at Wimpole Hall at Cambridge should be pensioned and that he should have the place. Following this Mr. Buist wrote that he might now come to him. The struggle between the chance of succeeding to the author of the Hortus Cantabrigensis and going across the water was severe; but America won, and Meehan reached Philadelphia the day following his twenty-second birthday.

Mr. Buist was arranging the removal of his nurseries and greenhouse to a large tract outside the city limits, but was not prepared to give up the oversight of his city business. To Mr. Meehan was assigned the duty of taking charge of the new establishment, under an agreement to retain the position for three years.

When a little over a year had passed, Andrew M. Eastwick, railroad builder for the Russian government had become the owner of Bartram's Gardens. He had but one week before returning to Russia, and engaged Mr. Buist to find some one who was at once botanist, landscape gardener and farmer, to take full charge during his proposed

long absence. He had secured the property in accordance with a desire when a poor apprentice, to secure and preserve the gardens for ever, as the only spot in which he had any pleasure when an orphan boy by a Sunday afternoon under the shading trees. Mr. Buist and Mr. Meehan both did their best, but just the person desired could not be found in the few days at command. In desperation to keep his word with Mr. Eastwick it was proposed and agreed on that Mr. Meehan himself should go there.

On the return of Mr. Eastwick, two years later, Mr. Caleb Cope had received from Kew seed of the Victoria Regia, and had built a large house on the plans of the Victoria house at Kew and Chatsworth, and Mr. Meehan was induced to go there and take charge of it. The flowering of the Victoria was a great event in those days in America.

In 1853 he started with \$1,000 capital and the rental of three acres of ground the Germantown Nurseries. It was a first attempt to make a specialty of the many beautiful trees and shrubs of America, only European nursery trees being grown from direct importations. The business has grown to immense proportions. Mr. Meehan is prouder of his business success than of his reputation in science, literature, or even as a public man in municipal affairs—especially as there is a general impression that to succeed in these lines one must neglect and be unfitted for business pursuits. He divided his business some years ago with his three younger sons, but still continues active work as a partner, with one-fourth interest in the large concern.

In the course of a sketch of Mr. Meehan the Philadelphia "Press" says:

While still a young man, and after correspondence with Robert Buist, he came to Philadelphia and organized the latter's West Philadelphia nurseries. After being with Mr. Buist for a little more than a year he was employed by Mr. Eastwick, the owner of Bartram's Gardens, as superintendent. He remained in Mr. Eastwick's employ until 1852, when he became head gardener to Caleb Cope, a wealthy dry goods merchant at Holmesburg, where the Forrest Home now is. Mr. Cope had just received some seed of the Victoria Regia from England. They were placed in the care of Mr. Meehan, who the following year succeeded in producing flowers for the first time in this country. It created a sensation and Mr. Cope was besieged by visitors anxious to see them.

In 1853 Mr. Meehan purchased a property in Upper Dublin, Montgomery county, now known as Ambler Station, and started into the nursery business for himself. After a few months he took into partnership William Saunders, who founded the "Grangers." Later they founded a nursery in Germantown opposite Pelham. Eventually Mr. Meehan assumed the whole business. The business prospered and later the nurseries were concentrated at their present location, Chew and Church streets, Germantown.

In 1859 D. Rodney King established the "Gardeners' Monthly Magazine" and engaged Mr. Meehan as its editor. He continued in that position for thirty years, when the magazine was consolidated with a New York horticultural publication. For sixteen years he was agricultural editor of Forney's "Weekly Press" and was a contributor to a large number of weekly and monthly papers and magazines. A few years ago, in conjunction with his younger sons, he established "Meehan's Monthly."

After coming to this country his activity and interest in scientific work continued. In 1860 he became a member of the Academy of Natural Sciences, attaching himself to the botanical section. His fame as botanist spread rapidly and widely until he was recognized as one of the most eminent vegetable biologists. For several years he had charge of the botanical section of the academy and was chairman of the Publication Committee. This is one of the most important bodies of the organization, as all scientific papers are criticized by it before going into the proceedings. A few years ago a plant was named Meehanis in his honor.

Twenty-three years ago he was elected senior vice-president of the Academy of Natural Sciences and has been re-elected annually since. He was offered the presidency on the death of Dr. Joseph Leidy, but declined in favor of General Isaac Wister. He became a member of the American Association for the Advancement of Science, soon after that society was organized, and at the time of his death was one of its oldest members. He was also a member of several similar organiza-

tions, both in this country and Europe. Several years ago he was chosen a member of the Board of Visitors of Harvard University. In former years he traveled extensively in the interest of science. He visited Alaska and was one of the first American visitors to the country after its purchase from Russia.

In public life he was well known throughout the state and especially in this city. During the term of Governor Hoyt the office of state botanist was created, and Mr. Meehan was appointed to fill it. He held the place through each succeeding administration.

In 1883 he was elected a member of the Common Council, and at that time nearly all the thoroughfares of Germantown were dirt roads. He succeeded in getting on the Highway Committee and immediately began exerting his efforts in behalf of the Germantown streets. It was largely through his efforts that the streets were paved. He was also a member of the Committee on Schools, and his last public act was when on Thursday, October 3, he presented a bill to raise \$2,000,000 for the erection of new school buildings. He was not able to attend the session last week, although he was in his office at Germantown on Friday morning. Mr. Meehan was a staunch reformer, and during his service as a councilman never gave his support to doubtful measures.

AN EMPIRE STATE ORCHARD.

Grant G. Hitchings, of Onondaga county, N. Y., thus describes in the Orange Judd Farmer his apple orchard:

As a member of the New York State Fruit Growers' Association I exhibited at the state fair at Syracuse recently 55 varieties of apples grown in my orchard. The most of these are well known varieties, but some of them are not generally grown, and are not usually seen on the market. The list of varieties exhibited is as follows:

Early Strawberry, Ribston Pippin, Spice, Knox Pippin, French Spitzenberg, Bailey Sweet, Mackintosh, Romanite, Tolman's Sweet, Smith Cider, Gideon, Cooper's Market, Red Canada, Longfield, Belle de Boskoop, Black Detroit, Northwestern Greening, Winesap, Jonathan, Sutton Beauty, Hubbardston Nonsuch, Transcendent, Holland Pippin, Gloria Mundi, Esopus Spitzenberg, Munson Sweet, Chenango Strawberry, Seek-no-further, Swaar, Black Gilliflower, Walbridge, Hyslop, Rambo, Roxbury Russet, Fallawater, Colvert, Alexander, Wealthy, Gravenstein, Pound Sweet, Ben Davis, King, Fameuse, Pewaukee, Astrachan, Baldwin, Northern Spy, Twenty Ounce, Rhode Island Greening, and four seedlings.

The trees from which these apples were taken vary from five to 100 years in age. The most of them, however, vary from five to twelve years. I have sprayed regularly for the past eight years, but do not prune at all. In my opinion a young tree is vigorous enough without pruning, as this only increases wood growth at the expense of fruit bud formation. I spray three times with bordeaux mixture each season, adding one-third pound of paris green to 50 gallons. I make the first application just as the buds swell; spraying a second time just before the blossoms open, and a third time soon after the blossoms fall. Sometimes I spray a fourth time, if it rains hard before the calyx end of the apple closes, my object being to encase a little of the poison in the blossom end of the apple if possible.

The underlying principle of the successful management of an apple orchard lies in the fact that one must keep the soil loose and porous, so that air and roots can penetrate deeply. The soil must also be filled with humus to hold moisture and maintain bacteria action. So far as my experience goes, I believe these conditions can be maintained more successfully and far cheaper by leaving the orchard in sod rather than by cultivation. This may seem a queer statement, and perhaps some of my readers will not agree with me in this matter, yet at the same time the product from my orchard exhibited at the state fair and at Buffalo attests the value of my system.

In my orchards, from the time the trees are set, grass is allowed to grow. For the first ten years it is cut and raked and placed around the trees as a mulch. In orchards of ten years' standing or older, the grass is cut and left where it falls and in this manner serves as a mulch for the entire area. I cut the grass but once during the entire season, the time depending on the soil and moisture.

In selecting a site for an orchard I would choose a sidehill sloping

toward the north. The trees should be 38 feet apart one way and from 28 to 36 feet the other, varying the distance so as to select the best spots of ground in the row for the trees. This system will also help break the force of the winds during severe storms. I believe it is better to mix varieties, as they will set better under ordinary circumstances.

MR. PERKINS' SUMMER TRIP.

In an article in the Horticultural Trade Bulletin, George C. Perkins, one of the firm of Jackson & Perkins Co., Newark, N. Y., says of his summer trip to Newfoundland:

We never fully appreciated the enterprise of American nurserymen until it was the fortune of the writer to visit the island of Newfoundland the past summer. Even that faraway and desolate land has been made a field for the activities of the omnipresent "tree-agent." While on board a steamer coasting along the southern shore of Newfoundland we made the acquaintance of an Englishman, who, after the usual crust of English reserve had been broken through, proved to be a most interesting and pleasant companion. He was one of those globe-trotting Englishmen who have tried life in nearly all the British colonies and he could describe his adventures and experiences in a most fascinating manner.

In the exchange of information about respective residences and occupations, which usually follows the acquaintance of two Anglo-Saxons, the writer mentioned that he lived near Rochester, N. Y., and was engaged in the nursery business. We also started to explain that the nursery business in this sense was not necessarily connected with the rearing of children, an explanation that we have frequently found necessary. It was not so in this instance, however, for our friend immediately asked, "Do you know———in Rochester, mentioning the name of a veteran nurseryman in that city. "I used to sell for him ten years ago when I first came out here and I did quite well too."

The interior of Newfoundland, except along the line of railway, is almost as completely undeveloped as the country surrounding the north pole, for there is nothing in the interior upon which a population could subsist. There are hundreds of miles of moss barrens which, in all probability have never been traversed by man. They furnish splendid feeding grounds for the caribou (or reindeer) however, which are very plentiful in Newfoundland and the hunting of them together with the fine salmon fishing is bringing an increasing number of sportsmen to the island each year.

For a summer outing trip we know of no place more interesting and delightful to visit. It has not yet been spoiled by being too well known and popular. For fishermen it is a place to remember for a lifetime; and for the hunter there are, besides caribou, foxes, otter, ptarmigan or arctic grouse, geese, ducks, etc. etc. There is little to be had in the way of hotel accommodations and the only way for sportsmen to do is to camp or else hire a boat of a size to live upon comfortably, a plan that can be followed by a party of four or five at wonderfully small cost.

HORTICULTURE IN NORTH CAROLINA.

The twenty-second annual meeting of the North Carolina Horticultural Society was held October 24th at Raleigh. It was reported that one man in Watauga county recently planted an orchard of 37,000 trees. Apple growing in the mountains of Western North Carolina and strawberry growing in the eastern section are the horticultural features of the state. The forest and fruit possibilities of North Carolina were discussed by Professor J. A. Holmes. The following officers were elected: President, J. Van Lindley; vice-president, O. W. Blacknall; secretary-treasurer, Franklin Sherman; executive committee, J. Van Lindley, chairman; Franklin Sherman, B. von Herff, P. H. Beck, J. F. Gulliver, O. W. Blacknall, T. K. Bruner.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.

OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

AWARDED THE GRAND PRIZE AT PARIS EXPOSITION, 1900.

SUBSCRIPTION RATES.

One year, in advance,	- - - - -	\$1.00
Six Months,	- - - - -	.75
Foreign Subscriptions, in advance,	- - - - -	1.50
Six Months,	" " - - - - -	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements. Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Robert C. Berckmans, Augusta, Ga.; vice-president, R. J. Coe, Fort Atkinson, Wis.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual convention for 1902—At Milwaukee, Wis., June 11-12.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., DECEMBER, 1901.

SEED DISTRIBUTION.

A despatch from Washington announces that the annual seed distribution by the Department of Agriculture will begin about December 1st. The nurserymen are more particularly interested in the date of the promised free distribution of trees by the department.

It will be remembered that at the annual convention of the American Association at Niagara Falls last June a resolution was adopted to the effect that it was the sense of the association in convention assembled that it is unqualifiedly opposed to the free distribution of nursery stock in any form by the government, and that the subject be referred to the committee on legislation with power to act. In the issue of the NATIONAL NURSERYMAN of last May was published a letter from B. T. Galloway, director of the Bureau of Plant Industry, stating what the department proposed to do. In that letter Mr. Galloway said:

"It is not intended by any means to make a promiscuous distribution of trees. On the other hand it is believed that any work of this kind should be limited to trees which are now known only locally and which under changed conditions by distribution might prove valuable. It is not the intention of the department to interfere in any way with legitimate trade. In fact it is believed that by the proper handling of the matter the trade can be stimulated by calling attention to the good things we have in our own country in a limited way. It is thought that by the distribution of a few rare trees and similar plants to different parts of the country, interest would be aroused which would result eventually to the benefit of all lines of horticulture."

It is to be remembered that it was along precisely these same lines of reasoning that the free distribution of seed was begun. The theory of introducing new varieties is all very well, but it is to be feared that the practice of sending out trees without cost by the United States Department of Agriculture will not conform strictly to the theory.

However, the matter is in the hands of the legislative committee of the American Association.

In another column is Secretary Wilson's explanation of the plans of the Department.

THOMAS MEEHAN.

We regret to announce the death of Thomas Meehan, the venerable head of the well known nurseries that bear his name, in Germantown, Philadelphia. The sketch of his eventful life published in the NATIONAL NURSERYMAN last April and the London comment in this issue indicate his services in the interest of horticulture. His work was of so enduring a nature that its influence will be felt as long as trees and flowers are cultivated.

Mr. Meehan was born in England seventy-five years ago and came to this country in 1848. He took a keen interest in public affairs, and was a member of city councils from 1882 until the time of his death. Mr. Meehan was editor of The Gardeners' Monthly Magazine from 1859 to 1889. He was for sixteen years agricultural editor of Forney's Weekly Press, and a few years ago, with his sons, he established Meehan's Monthly. For twenty-three years he was senior vice-president of the Philadelphia Academy of Natural Science. He was at one time member of the board of visitors of Harvard University. He held the office of state botanist of Pennsylvania. Mr. Meehan was the author of a volume entitled "The American Handbook of Ornamental Trees."

EDIBLE HORSE CHESTNUTS.

And now it is proposed to use horse chestnuts as food. It is stated that the horse chestnut contains besides starch and some sugar about 10 per cent. of bitter resin and fat oil and 27 per cent. of albumen, which makes it richer in albumen even than peas and beans. How to get rid of the bitter taste has been the problem. This, it is now stated, has been solved. After the brown shell has been removed, the body of the nut is pulverized and the powder saturated in a tightly-closed percolator with pure alcohol or ether alcohol. After standing for a week at moderate temperature the resin has passed into solution, and the fluid in which it is contained is drawn off. In

order to extract the resin completely, fresh quantities of the solvents mentioned are required and are obtained from the resin solution. By heating this fluid the solvent is volatilized and the better resin remains. The vapors of alcohol are carried back into the upper part of the percolator, and, after being condensed by a cooling device, are used once more upon the chestnut meal, the process being repeated until the fluid running from the percolator is free from any bitter taste. The alcohol retained by the chestnut meal is distilled off and the meal dried.

FOREST TREE PLANTING.

One of the most important and promising lines of work of the Bureau of Forestry, says the Secretary of Agriculture, is its study of economic tree planting and its co-operation with farmers and others in making forest plantations. Tree planting has so vital and intimate a relation to the welfare of the farmer in the treeless regions that whatever assists him to grow trees assists him also in the production of every other crop. Forty-six thousand one hundred and forty-five acres were examined for planting during the year, and planting plans were prepared for 5,785 acres, while 148 applications for tree-planting plans have been received. The number of applications for commercial plantations of large size is increasing so rapidly that the usefulness of the practical assistance and advice offered to the tree planters will be limited only by the men and money available for the work.

A series of important measurements of the growth of planted groves in the treeless plains has been begun in order to show the value of plantations as business investments. A careful study has been pushed during the year of the encroachment on forests of the Western plains in order to determine the possibility of reclaiming portions of non-agricultural Government land by planting forests.

ILLINOIS HORTICULTURAL SOCIETY.

The forty-sixth annual convention of the Illinois State Horticultural Society will be held in the Agricultural Building of the University of Illinois, at Champaign, December 10, 11 and 12. Delegates will be present from other states, a program of unusual interest will be presented, and many prominent horticulturists will be present.

The following are some of the papers which will be read and subjects discussed: Rev. J. R. Reasoner will speak on "Strawberries;" E. A. Riehl, "Grape Culture for Farmers;" Arthur Bryant, "Plums, Varieties and Culture;" W. A. Young, "Best Methods of Harvesting and Marketing the Apple Crop;" Prof. J. C. Blair, "Cool and Cold Storage Experiments;" Dr. W. K. Jacques, "Preparation of Orchard Soils;" A. P. Darby, "Cow Peas as an Orchard Fertilizer." Two interesting papers by ladies will be "Civic Improvement Societies and their Work," by Mrs. J. L. Hartwell, and "Fruit in its Relation to Health," by Mrs. J. C. Blair.

Dr. J. T. Burrill, of the University of Illinois, will treat on "Bitter Rot on Apples;" S. A. Forbes, state entomologist, "The Canker Worm in Illinois Orchards;" H. T. Thompson, "Best Methods for Propagating Trees for the Orchard;" J. W. Stanton, "Illinois Fruits at the Pan-American Exposition." Other topics that will be taken by prominent men are: "De-

velopment of New Orchard Fruits;" "Weak Places in Orchard Management." Henry M. Dunlop, Savoy, is president of the society; L. R. Bryant, Princeton, secretary. H. Augustine will be in charge of the question box.

APPLE EXPORTS.

The apple exports of the United States and Canada for the season 1900-01 make a total of 1,346,030 barrels, included among which are 203,333 boxes of California apples; says the Gardeners' Magazine. Total exports for the previous season amounted to 1,293,121 barrels, including 149,515 California boxes. For last season the chief port of export was Boston with 409,979 barrels, Montreal coming next with 249,219 barrels, followed by New York with 240,635 barrels. The chief port of import was Liverpool with 814,100 barrels, London following with 251,322 barrels, after which came Glasgow with 225,051 barrels.

ROYAL BOTANIC GARDENS.

Sir W. T. Thiselton-Dyer, K. C. M. G., C. I. E., F. R. S., LL. D., Ph. D., M. A., T. L. S., is the director of the Royal Botanic Gardens at Kew, England, Director George Nicholson having retired. During 1900 the number of persons who visited these gardens was 1,111,024. In 1899 the number was 1,197,565. The total number on Sundays was 487,772, on week days 623,252.

TREATMENT OF RAFFIA.

It is well known that although raffia has many good points, it has the fault of soon decaying from damp. We now learn that this fault can be overcome, says the Gardeners Chronicle, by sulphuring the material, i. e., exposing it to the fumes of burning sulphur in a close closet or room, and its durability increased sevenfold.

Nurserymen will heartily endorse the proposition at a recent meeting of the Educational Science Section of the British Association, that the teaching of botany be simplified; that class work tend even more than it has of late to a practical acquaintance with plants at the same time that an acquaintance with botanical terminology is acquired.

It is announced that Professor C. L. Marlatt, assistant entomologist of the U. S. Department of Agriculture, has found in Northern China the original home of the San Jose scale and also a species of ladybug which in that latitude keeps the scale in check. They say the scale has reached America and now the ladybug is coming. We have thought all along that this matter would work itself out.

Insomnia in trees (languishing of trees on the Thames Embankment, England, because they are deprived of rest after sunset by the powerful electric lights); iceless refrigerators (the keeping of fruits, milk, butter, etc., fresh in a portable closet by the use of pure water); edible horse chestnuts (the removal of the bitter taste), are some of the developments of the season. And still they wonder at the "Stringfellow method."

Among Growers and Dealers.

The Southern Nursery Association will meet in Charleston, S. C., on January 21st.

C. W. Stewart & Co., Newark, N. Y., this fall constructed a frost proof cellar and packing house.

The annual meeting of the Eastern Nurserymen's Association will be held in Rochester on January 15th.

The McKinney Nurseries, established by E. W. Kirkpatrick at McKinney, Tex., have been sold to Robert Cruse, Benham, Tex.

The Western Association of Wholesale Nurserymen will hold its semi-annual meeting in Kansas City, Mo., December 17th.

Captain Watrous, the Des Moines nurseryman, says the Fruitman, has bought the Terry plum, once called the Free Silver, and will push it on its merits.

R. Morrell, the Michigan peach expert, will make a venture in Texas. He is to plant there the largest peach orchard in the world, 6,000 acres.—The Fruitman.

J. C. Roesse, Osceola, Wis., says: "This section has been blessed with abundant rains the past season, which bodes well for the nurserymen and fruit growers."

Mr. and Mrs. Philippe de Vilmoren, of Paris, who made a tour through the United States and Canada during the last two months, sailed for home from New York November 14th.

The twenty-sixth state convention of Fruit Growers of California will convene at San Francisco under the auspices of the State Board of Horticulture on December 3d, and continue in session four days.

H. F. Hartzell, of John Peters & Co., Uriah, Pa., has sold his interest in that firm to his partners, John Peters and Earl Peters, who will conduct the business in the future under the same firm name as before.

Robert George has been elected general manager of the Storrs & Harrison Company to fill the vacancy caused by the death of William G. Storrs. Edward B. George has been elected superintendent to succeed his father.

The seventh annual meeting and exhibition of the New Hampshire Horticultural Society was held at Claremont, October 23-24. The display of apples was said to excel that of New York at the Buffalo Exposition. The largest exhibit was by C. A. Evans, over 200 varieties of fruits, flowers and vegetables.

Articles of incorporation have been filed by the Chase Rose Company of Riverside, Cal. The company is organized to do a general nursery and floral business, and is incorporated for \$25,000 all paid up. The incorporators and directors are: E. A. Chase, F. F. Chase, H. B. Chase, M. A. Chase and C. W. Howard.

William Crawford Barry, son of William C. Barry of the firm of Ellwanger & Barry, Rochester, N. Y., and Miss Grace Goodloe, youngest daughter of the late William C. Goodloe, Lexington, Kentucky, were married by Rt. Rev. Bernard J. McQuaid, bishop of the Roman Catholic diocese of Rochester, at Lexington, Ky., on November 14th.

At the fall meeting of the Michigan Horticultural Society part of the afternoon was spent on the grounds of Greening Brothers' Nurseries, where a steam digger was in use, digging trees. Senior students of the agricultural college were taken to this nursery in the morning, and in the afternoon to the Monroe Nurseries, I. E. Ilgenfritz's Sons, and the details of the business shown and explained.

The vineyardists on this belt are not pulling out their grapes, says George S. Josselyn of Fredonia, N. Y., in Rural New Yorker. On the contrary, they are buying more vines to put out more acreage, although we have 30,000 acres on our belt. The exact reason, I think, that they are not pulling out vineyards, and are going to plant more, is that the grapes here are bringing big prices, better prices than they have before in many years.

E. F. STEPHENS, CRETE, NEB., Nov. 7, 1901—"We take pleasure in sending you \$1 to renew our subscription to your excellent journal. We hope to continue to receive it as long as we remain in business, which will be as long as we live."

MAINE POMOLOGICAL SOCIETY.

At the annual meeting of the Maine Pomological Society at Dexter, Nov. 6-7, J. H. Hale said he had expended thousands of dollars for commercial fertilizers; but that he is not doing it now for he thinks it is money wasted. "I am stirring the soil as it ought to be stirred," he said, "and that is my fertilizer." Six hundred plates of apples, 85 of pears and six of grapes were exhibited. These officials were elected: President, Z. A. Gilbert, North Greene; vice-presidents, D. P. True, Leeds Center, H. L. Leland, East Sangerville; secretary, D. H. Knowlton, Farmington; treasurer, C. S. Pope, Manchester.

PHYLLOXERA-RESISTING VINES.

Resistant vines, says the California Nursery Company's catalogue, are now being generally planted in all parts where phylloxera has made its appearance. The progress of this pernicious insect has been slow in California, but wherever it has appeared, it has been found necessary to graft on resistant stocks. Only in isolated districts where phylloxera is not likely to reach, it is safe to plant the European grapes on their own roots. The great value of resistant stock may be judged from the fact that since the almost total destruction of the vines of France, that country has replanted its vineyards with resistant stocks, and now possesses about two million acres of vines grafted on phylloxera-resisting roots. The yield of wine in France which once had dwindled down to an insignificant figure, has in consequence increased to such an extent, that it is now several million gallons greater than it was before the advent of the phylloxera. In California the use of resistant stocks has proven as great a success as in France.

THE KIEFFER PEAR.

Nurserymen will be interested in the following statement by the Rural New Yorker, in response to a query from Benton Harbor, Mich:

R. N. Y.—We have been watching the Kieffer pear closely in this market. A few years ago in New York, during its season, the push carts and fruit stands were well covered with it. Many were sold to eat out of the hand, and the result, nine times out of ten, was evidently a disappointment. Gradually the fruit has disappeared from these retail stands, until now it is rarely seen. This is good evidence that the buying public recognize it, and will not buy it for eating from the hand. We believe that its sale will be limited to the demand for canning purposes, and there are few better fruits for this purpose. In order to make sure we have asked some leading fruit dealers for opinions as to the future trade in Kieffers.

Stearns & Brothers, Baltimore, Md., state that the Kieffer does not bring the prices that other varieties do, and think that too many of them are grown. S. H. & E. H. Frost, New York say: "The foreign demand seems increasing somewhat. This will help to relieve the market, and it may be that large increased production might pay many years to come."

Brown & McMahon, Philadelphia, say: "Our opinion is that the Kieffer pear business is very much overdone, and instead of planting more trees they would better cut some down." Archdeacon & Co., New York: "It may be very good for canning or cooking; in fact, in the South it is a pear which they prefer to all others, probably because they have no others."

PEHER S. PETERSON.

The American Florist publishes the following sketch of a well-known nurseryman :

Peher S. Peterson, than whom there is no more widely known Scandinavian in America, was born in Sweden, June 15, 1830. Until thirteen years of age he remained at home, attending the schools of his native town, but he early manifested a love of nature and his youth was given to acquiring a practical knowledge of horticulture. After five years in the gardens of his native land, he spent three years on the continent, in leading horticultural institutions at Hamburg, Erfurt and Ghent, as which latter place he was with Louis Van Houtte.

Coming to Toronto in 1851, he soon saw that the most open chances for success lay in the United States, and he went to Rochester, then, as now, the center of the nursery interests of the country. He obtained employment with Frost & Co., beginning at \$8 a month and board. Within three years he had not only acquired the English language but was working for Ellwanger & Barry at the large salary, for those days, of \$100 a month. Thinking to obtain riches faster by digging for gold than by delving in nursery rows, in 1854 he went to California via Panama, but aside from budding a lot of fruit trees, which still grow on Vancouver, the venture was productive of little save experience.

In 1856 Mr. Peterson established the present business, the Rose Hill Nursery, on a small piece of rented land then some miles outside of Chicago. In the next year a ten acre tract of woodland was purchased and has since been added to until it now amounts of 496 acres, the largest piece of acre property in Chicago, for in 1889 the entire holding was annexed to the city. It lies seven miles northwest of the City Hall, and on it is one of the finest collections of ornamental stock in America, for here, in the course of years, Mr. Peterson has found the gold he failed to find in California.

His attainments in horticulture have found appreciation at home and abroad, and have been recognized by many scientific societies. He is the second in over half a century to be voted an honorary member of the Horticultural Society of Stockholm, and the King of Sweden has on several occasions shown him signal honor, having created him a Knight of the Vasa order. In 1865 Mr. Peterson married Mary A. Gage, of Boston. Their only child is William A. Peterson, a member of the firm and its manager since 1895. Since retiring from active business Mr. Peterson has spent most of his time abroad.

PRUNES IN WESTERN EUROPE.

In a bulletin of the United States Department of Agriculture, Edward R. Lake, professor of botany and horticulture in the Oregon State Agricultural College, says in regard to prunes in Western Europe :

In the Pacific Northwest the peach is the common stock for the plum, though during the past few years the Myroblan plum has been used to some extent. In France, Germany and Austria all plums are grown on plum stocks, and occasionally this stock is used quite extensively for the peach. The common stock for the Agen is the St. Julien; for the "quetsches," St. Julien and White Damson; for the Mirabelle, St. Julien and Myroblan. This latter is not regarded by the growers as a desirable stock, but nurserymen prefer to use it, and if the stock is not specified this is the one usually sent out. Growers assert that trees on Myroblan stock are much shorter lived than those on St. Julien stock. How much real weight can be attached to this statement is not known, as well authenticated experiments have not been conducted along this line. French horticulturists give as their reasons for using the plum stock generally for the peach, that it is a deeper feeder, lives longer, is hardier, more vigorous, and less susceptible to adverse soil conditions, and for planting near houses it is to be preferred to the peach, because it will send its roots deep into the cold earth below the basement walls and thus develop a crop under conditions in which the peach would barely live, except it should feed entirely from the adjacent border, which is desired for other crops. When it is known that a very large proportion of the peach trees of France are grown at espaliers on high walls and sides of buildings, the force of the position taken by the French growers and propagators is apparent.

Recent Publications.

U. S. DEPARTMENT OF AGRICULTURE—BULLETINS—"Field Work of the Division of Agrostology," by Cornelius L. Shean; "Fall Army Worm and Variegated Cutworm," F. H. Chittenden.

Dr. Ephraim Porter Felt, state entomologist of New York, has issued a bulletin on scale insects of importance and list of species in New York state. It is illustrated with colored plates and is of value to all who have to do with horticulture.

OLD TIME GARDENS—Newly set forth by Alice Morse Earle, author of "Stage Coach and Tavern Days." A delightful excursion into the archaeology and lore of flowers and gardens. Profusely illustrated from rarely beautiful photographs collected by the author. Cloth, crown 8vo., \$2.50. Also a limited edition de luxe, 350 copies, photogravure plates, \$20.00. New York: THE MACMILLAN CO.

COUNTRY LIFE IN AMERICA—The first number of this new monthly, edited by Prof. L. H. Bailey, has appeared. It is intended for all lovers of nature and beautiful places. It is profusely illustrated, and is handsomely printed on heavy paper. Among the contributors to the initial number are Samuel B. Parsons, Jr., Prof. Waugh and William Scott. \$3 per year; 25 cents per copy. New York: DOUBLEDAY, PAGE & CO.

G. L. Taber, proprietor of the Glen St. Mary, Florida, Nurseries, has issued another up-to-date catalogue, upon the occasion of the twentieth anniversary of these southern nurseries. Thirty pages of the catalogue are devoted to description of desirable fruit and ornamental nursery stock. Then follow directions as to planting and finally a word to customers as to prices for stock. The description of varieties is arranged in such a manner as to make this catalogue of special value for reference.

THE DELINEATOR—The Christmas number of The Delineator is about the first of the special Christmas issues. It is a beauty. The cover is a most artistic production, showing a beautifully gowned woman standing gracefully in a brilliantly lighted salon. Two charming love stories, one by Cyrus Townsend Brady, plenty of advice regarding Christmas Gifts, timely pointers on cookery, winter-time care of plants, all the fashions of the day interpreted into simple language can be found in the Christmas number of The Delineator.

THE YOUTH'S COMPANION—Among the names of those who will write for the Youth's Companion in 1902 are Hon. John D. Long, Secretary of the Navy; Hon. David J. Brewer, of the Supreme Court; Postmaster General Charles E. Smith; Bishop Henry C. Potter; Lillian Nordica; Gen. A. W. Greely; Right Hon. James Bryce, M. P.; the Duke of Argyll; Sir Edwin Arnold; Winston S. Churchill, M. P.; Julian Ralph; Booker T. Washington; Rider Haggard; Gen. Charles King; Frank R. Stockton; Caroline Hazard. An illustrated announcement with copies of the paper free. Subscription, \$1.75. Boston: THE YOUTH'S COMPANION.

OUR NATIONAL PARKS.—This book deals with outdoor matters on a large scale. It sweeps vast regions; treats of mountains, forests, rivers, and canons of greater and more impressive proportions than any others in the world. The author, John Muir, is a scientist of international reputation, one of the most daring and enthusiastic of travelers, but one whose love of accuracy has never interfered with his hearty delight in the beauty of tree, flower, mountain and valley. No one else knows our great Western parks as he does, and his book is as full of enthusiasm as of knowledge.

Mr. Muir writes of the Yellowstone, Yosemite, General Grant, and Sequoia National Parks, their trees and flowers, birds and beasts, fountains and streams and mountains, with a scientist's accuracy and a nature lover's fondness. The book is illustrated from photographs, many of which were taken by Mr. Muir himself. Boston, New York, Chicago: HOUGHTON, MIFFLIN & CO.

THE GREELEY NURSERIES, GREELEY, COLORADO, Oct. 26, 1901.—"We enclose you a two dollar bill to carry us another year. We cannot do without your journal any more than we can go without dinner. Send it along."

CONFERENCE ON NURSERIES.

Methods of Inspecting Trees Discussed by State Horticultural Inspectors at Washington Meeting—National Inspection Law Indorsed—List of Questions Submitted—Sixteen States Represented—Comment on the Subject—Plans for Next Year.

Horticultural inspectors of several states met in Chicago on January 4th and effected an organization which met in Washington Nov. 11-12 to discuss these questions:

1. Within what limits of time may nurseries properly be inspected, and what period should the annual certificate be made to cover?
2. What should be the usual form of certificate?
3. What should be the procedure or form of the certificate, in case some part of a nursery is affected by a dangerous fungus or insect pest not of a kind to involve other parts not so affected?
4. What should be the common policy of state inspectors with reference to stock officially inspected and certified in other states?
5. What application should be given to the term nursery stock? Should it include herbaceous plants grown out of doors? Should it even include greenhouse plants?
6. What nursery pests should be regarded as dangerous enough to influence or prevent the granting of certificate?
7. May provision be made for the publication of a practical article on the principal pests of the country, available for all horticultural inspectors, and distributed to all others immediately interested?
8. What measures should be taken by horticultural inspectors for the regulation of dealers, not owners of nursery premises, nor growing their own stock for sale?
9. Is national legislation covering nursery inspection desirable and practicable?
10. What, in the judgment of the conference, is the best insecticide program, for orchards infested with a San Jose scale, for the official entomologist charged with the destruction of the scale, and for the private owner seeking to suppress the scale or to keep it in check?
11. What insects or fungous pests of the orchard should be regarded as sufficiently dangerous to the property of others to require suppression by individuals in the general interest?
12. What is a sound public policy with respect to the division between the state and the property owner of the costs of a practical operation for the control of horticultural pests?

We are indebted to the chairman of the meeting, Prof. S. A. Forbes, state entomologist of Illinois, for the following report of the conference:

Sixteen states were represented by their official horticultural inspectors as follows: Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Maryland, Massachusetts, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, and Wisconsin.

In the course of the conference it was voted that the time of inspection should be determined in each state at the discretion of the inspector, but that all peach stock should be inspected as late in the season as practicable, particularly where the surroundings were such as to cause suspicion of the occurrence of the San Jose scale, or where the origin of the buds was either suspicious or unknown. In such cases, if the nursery was inspected early, a late supplemental inspection of the peach stock should be made.

A committee report was received to the effect that the best insecticide procedure for the destruction of the San Jose scale in the nursery is "strict inspection followed by proper fumigation with hydrocyanic acid gas," and in orchards, "late summer and fall treatment with dilute solutions of insecticide soaps, oils or other effective insecticides to kill young scales; and winter treatment with insecticide soaps or oils sufficiently strong to kill the scale, and which have been proved safe to trees of all kinds in the region where the application is to be made."

It was further voted that a certificate ought not to apply in any state beyond the commencement of the next breeding period of the San Jose scale in that state; and that, as a rule, but one form of certificate should be used by each inspector, so worded as to be applicable not only to stock from nurseries all parts of which were free from dangerous insect

and fungus pests, but also to stock sold from nurseries after some parts of it had been thrown out as not included under the certificate. It was further agreed that every certificate should specify the date of the completion of the inspection on which it was based.

Concerning national control of interstate commerce in nursery stock, it was resolved that the bill providing for such control by the United States Department of Agriculture, introduced and favorably reported in both branches of Congress at the last session, should be enacted.

It was unanimously agreed that strawberry plants, grape cuttings, and ornamental stock grown out of doors should be regarded as nursery stock and subject to inspection; and that where a state requires the inspection of nurseries, it ought to provide for such inspection without cost to the nurseryman.

The Secretary of Agriculture was asked to provide for the publication of a practical article on the principal nursery pests of the country, available for all horticultural inspectors and distributed to all nurserymen and others immediately interested. For the purpose of obtaining materials for compiling a list of nursery pests dangerous enough to influence the granting of a certificate, each official inspector was requested to submit a list of the insects and diseases which, in his opinion, should always bar nursery stock from receiving an official certificate, together with a secondary list of those of less importance but nevertheless requiring the attention of the owner of the premises. These lists, when received by the Secretary, will be compiled by him and the resulting general list furnished to all inspectors.

The subject of the legal and constitutional powers and duties of inspectors was discussed at length, but owing to the different forms of legislation in the different states no general conclusion was reached.

The conference decided not to form a permanent organization, but provided for another meeting to be held in connection with the next annual Convention of the Association of Agricultural Colleges and Experiment Stations.

S. A. Forbes, State Entomologist of Illinois, was elected chairman for the ensuing year with instructions to take all necessary steps preliminary to this meeting.

It was agreed at this conference that dealers, not owners of nurseries, for growing their own stock for sale, should receive certificates if stock in their possession is found to be clean, or if an infested portion is destroyed, or if the dealer will treat the stock according to the directions of the inspector.

Regarding the conference, George G. Atwood, of New York State, one of those present, says in the Country Gentleman:

The right of one state to set up and enforce laws or regulations against the entry of stock from other states in direct violation of the United States inter-state commerce laws, and the right of any inspector or commission to enter on the premises of an owner and arbitrarily destroy his orchards for the public good, are questions which are coming before the courts, and which may not all be settled in the interest of such inspectors as may happen to be on the defensive. No doubt the interchange of opinions and the exposition of practices will have an effect on the future work of all the inspectors, and possibly some influence on coming legislation. The inspectors all feel the burden of responsibility resting on them; they are alert to the best methods of doing their work, and while their fields of labor are widely separated and the conditions various, a feeling of good fellowship prevailed. All the inspectors admit that they live "in glass houses" so far as San Jose scale is considered, for, do our work as thoroughly and conscientiously as we may, do any of us like to be informed that a case of scale has slipped from under our observation and gone into a neighboring state? The San Jose scale problem is still regarded by the inspectors as a very serious one, and one that must be combated without intermission.

WILL USE ITS COLUMNS REGULARLY.

VILLAGE NURSERIES, G. W. KEMP, MANAGER, HARNEDSVILLE, PA.—"Enclosed please find check for one year's subscription to your most valuable paper. We cannot offer too much praise for your most valuable trade journal, and will use its columns regularly in placing our business before the trade. Wishing you success."

TRADE IN VIRGINIA.

*Filling of Agents' Orders Completed Last Month—W. T. Hood & Company Worked Nights in Well-Lighted Packing Sheds—
Nearly Sold Out on Apple and Peach—Heavy Demand
for Elbertas—An Experience With Substitution.*

RICHMOND, Va., November 23.—W. T. Hood & Co.: "We had a very wet August and the first half of September, which put us very much behind with our budding, and we did not get through until about the 10th of October. The season, also, made stock put on a late growth, especially apple and peach, and they were not in condition to dig until after the middle of October, and we were not ready for packing until the 31st of October, and then with about one-third of the trees in nursery rows; and as we did not have any rain from the 20th of September until to-day, we had a hard time to dig, which was mostly done with picks, and we finished our agents' sales only a few days ago.

"At this time we cannot tell how our collections will be. We have sold out in almost all varieties of apples and peach, and will have a very light stock of fruit trees to offer for spring. We have, also, had to dig heavy of some varieties of apple buds, which we could not buy, which will make us short on them next fall. The stock which we have had to buy has almost all been satisfactory. Some of it was a little late reaching us; also, one lot of 500 apples we bought for Early Harvest, did not prove to be Early Harvest, except about 75, and we had to return the balance; and the only satisfaction the party could give us was that if they were not Early Harvest he did not know what Early Harvest was, which we are inclined to think was the case, though they are supposed to be one of the big growers of the East.

Our plantings of last spring have done very well, though we did not make a large planting, as we thought we would have as many as we could sell. We also did not expect to plant heavy next Spring, but when the time comes around we may plant more than we should. There has been so much demand for peach trees, especially Elberta, that we think there will be a very heavy planting of seed, especially in Georgia.

We have sold to one party to plant in Northern Georgia, 700 bushels, and to another 400, and if others plant in the same proportion, there will be plenty of peach trees next fall, and fall of 1903.

"Our sales are mostly made through agents, and we had to meet low prices the past season, which has made us have to handle a large lot of trees, and we do not see that we are in a position to put up prices, as long as there are so many wholesale firms selling their trees to planters about the same as they sell to the retailers, and while they have had a good time for the past three years, we expect to see them begging to give them away before many years.

"We have had our sheds lit up with seven Kitson lamps, which made us better light than the same number of arc lights would, and we were thus enabled to fill orders until 10 p. m. As we started about a day behind they enabled us to catch up. If we had not worked at night, we would have been several days behind; and everyone who has handled agents' sales, with only a limited time for trees to reach destination, knows what that would mean."

MR. ELLWANGER'S BIRTHDAY.

George Ellwanger, the senior member of the firm of Ellwanger & Barry, on the evening of Dec. 2 gave the annual dinner in honor of the trustees of Reynolds Library. It was the occasion of the 85th birthday of Mr. Ellwanger. There was a brilliant assemblage about the board. Hon. Walter S. Hubbell was the toastmaster. Rev. Dr. Algernon S. Crapsey, speaking to the toast "The Dinner and the Diner," read an original poem, suggested, he said, by the ghost of Hans Breitman, the closing stanzas of which are as follows:

So here's to Shorge Ellwanger,
Dot host from Gross-Heppach,
Dot sholly Wurtemberger,
Mit vine upon his back.

Und ven dose angels take him
To dot city of his God,
Den veep ye shell-pink aster,
Den vade ye golden rod.

Pe still ye cut-leave birches,
Pe sad ye bright sunflowers,
In vain dis drere world searches
Vor dot dear friend of ours.

But up above dot Peter,
Make open vide dot door,
Und give a greetin' sweeter
Ash he nefer give before.

He cries, Here's Shorge Ellwanger,
Dot soul from Gross-Heppach,
Dot lovely Wurtemberger
Mit flowers in his track.

Den shout dose palms mit gladness,
Den blooms dot asphodel,
In heaven dere is no sadness,
Dere's even shoy in hell.

Now fill up high your glasses,
Und drink von health mit me,
Vich besser lad nor lassies
Nere trinkt by land or sea.

Ho, here's to Shorge Ellwanger,
Dot heart from Gross-Heppach,
Dot shentle Wurtemberger,
Mit kindness at his back.

There were many toasts by prominent citizens of Rochester, all of which testified to the reverence and love with which Mr. Ellwanger is regarded.

RESULT OF NURSERY COMPANY'S SUIT.

The Sutter County, Cal., Farmer says: H. P. Stabler, as secretary of the county boards of horticultural commissioners of the state, has recently had printed and sent to all the commissioners and inspectors the full text of a recent decision in the case of the Oregon Nursery Company of Salem vs. R. W. Coates and A. W. Samson of Red Bluff, local inspectors.

The decision was rendered by Judge Ellison of Tehama county, and is of great interest to those engaged in the work of seeing that nothing but clean stock is planted. The law gives the local commissioners and quarantine officers full power to inspect and pass upon nursery stock, trees, etc., condemning such as are infested with injurious insects or pests, and should be rigidly enforced.

TREE AND PLANT LABELS.

Why cannot the nurseryman, when he is sending out his orders, label each with a permanent label, and so let the one act be that of utility and lasting use, asks Harrison Weir in Gardner's Chronicle. Instead of which as matters are, when one is planting, fresh labels have to be got and written, the traveling ones taken off, and the permanent ones substituted. This double labor should be avoided, and the customer put to as little inconvenience and trouble as possible. This I take it is the proper and business-like way of doing things, not the slipshod style now adopted, of useless labeling, beyond that of present identification. Permanent name appendages would also simplify planting, and make it at least more pleasurable than as now it is tedious.

Why not have either wood or zinc in a form easily wired on the tree and written on either with indelible ink or with an indelible pencil? And so with the herbaceous plants. Why not have nice white wooden labels so written that when the new comers are garden placed, the label can be inserted in the soil, and then so on to the next and the next. True, it may be argued, and this with some reason, that you, knowing what you have ordered, can prepare and write your labels beforehand, and then change the nurseryman's for yours. Yes, this could be done, doubtless, and probably is, but if you have a hundred or two they get mixed, and each has to be sought for as wanted, and thus very much valuable time is lost. Whereas, if the nurseryman, on sending out his trees or what not, properly puts on permanent labels, all this secondary use of time, which is lost, would be saved and the planting perfected at once. It is just as easy to tie on one kind of label as another, and, therefore, it is merely a matter of cost, which might be slightly more, yet of such a trifling sum as to render it unworthy of consideration in the face of the increased utility.

KANSAS ORCHARDS.

Ex-Governor E. N. Morrill of Kansas is another apple king in that region of royalty in the fruit line. His orchards are in the southern part of Leavenworth county. Counting 27 000 trees he set out last April, there are 64,000 trees on 800 acres, a compact area of land, making it perhaps the largest single apple orchard in this country or in the world. Mr. Morrill bought 880 acres of land three years ago and began planting. The severe winter of two years ago destroyed 20,000 young trees. The trees are planted 80 to the acre. There are 12,000 Jonathans, which are considered the best apples for that country.—Fruit Trade Journal.

Long and Short.

The Deming field sprayer is thoroughly reliable.

The Opalescent apple is one of the specialties offered by McNary & Gaines, Xenia, O. They furnish description.

The Willis Nurseries, Ottawa, Kan., offer 50,000 apples, No. 1, two years, 10,000 cherries, No. 1, two years, 2,500 Kieffer pears, No. 1, two years.

D. S. Lake, Shenandoah, Ia., claims to be the largest grower in America of apple seedlings, graded to the highest standard, either straight or branched roots for budding or grafting. He has gooseberries, apple, cherry, plum, grapes and shade trees by the carload.

CHANGE IN FIRM.

On November 15, 1901, the firm of Schuette & Czarnowski, St. Louis, Mo., was dissolved by mutual consent; Mr. Czarnowski retiring. The firm will continue business as heretofore under name of J. W. Schuette & Co. The change in name means no change in the management whatever, as Mr. Schuette who has had complete charge of the management since 1894, and previously for S. M. Bayles, will continue to give the business his personal attention; and maintain the reputation established during the last 43 years.

PLASTER CASTS OF FRUIT.

With the large number of fruits named and scattered over the country, it is impossible for any one to keep in memory the characteristics of each one—and yet nurserymen everywhere continually have fruits sent them for name, says Meehan's Monthly. A correspondent makes the good suggestion that if some one would take in hand the making of plaster casts, properly colored, of all the leading varieties of fruit, there would be sufficient demand for them to make the preparations profitable. There are few nurserymen, he believes, but would be glad to have on hand a dozen or so of the leading varieties of apples and pears, at least. He observes, further, that there is just as much need of these models of fruits as there is of a herbarium to a botanist.

Obituary.

Judge Samuel Miller, well known in the Central West as a horticultural writer, died at his home in Bluffton, Mo., October 24th, aged 81 years. He was born in Lancaster, Pa. He had nine children, 38 grandchildren and six great grandchildren. For sixty years he grew trees and plants and developed fruits. He originated the Martha white grape. In 1867 he moved to Bluffton where he developed the Captain Jack strawberry. While serving in the horticultural department at the Pan-American Exposition, Judge Miller contracted an illness which proved fatal.

Arthur T. Nelson, Lebanon, Mo., died November 10th, aged 71 years. He was one of the leading citizens of Laclede county, and one of the greatest fruit growers in South Missouri. He was born in Oneida county, New York; he lived in Buffalo twenty-three years, where he was engaged in lake and canal transportation and farming. He went to Lebanon in 1883 as manager of the Ozark Plateau Land Company, which had purchased 150,000 of land in Laclede and adjoining counties, which position he held at the time of his death. He was a member of the State Board of Agriculture, and had been treasurer of Missouri State Horticultural Society for eight years.

CHARLES DETRICHE, Senior,
ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.

Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers.

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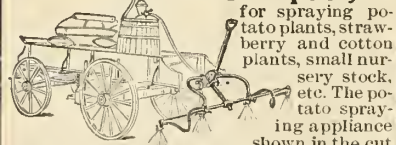
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